

Appendix P: Sustainability Management Plan

Byford Rail Extension

Sustainability Management Plan

Sustainability Management Plan

Document details	
Title	Sustainability Management Plan
Project	Byford Rail Extension (BRE) Design and Construction Project
Laing O'Rourke Project No.	R30
Client	Public Transport Authority of Western Australia
Client contract No.	PTA200142
MetCONNx Document No.	R30-MET-PLN-SU-000-00001

Note: This document will be finalised post-award in line with the requirements of the Project Alliance Agreement (PAA) for the Project. MetCONNx in collaboration with the Public Transport Authority will together create a practical final version of this plan that is suitable for endorsement.

Document revision history and sign-off

Rev	Date	Revision Description	Prepared by	Reviewed by	Approved by
A	19-Apr-2022	Issued for review	Nick Clarke	Jeremy Matterson	Jeremy Matterson
B	09-Sep-2022	Amended as per PTA comments	Emma Kindness	Damon Carter	Jeremy Matterson
C	19-May-2023	Amended as per PTA comments	Flavia Melo Tarmo	Leigh Penney	Ewan Gee

This plan has been prepared by the Alliance Management Team (AMT) in accordance with the relevant requirements during the ADA. The initial issue of this plan has been reviewed by the Alliance Manager and the Public Transport Authority (PTA) and is required to be approved by the Public Transport Authority (PTA) within 30 days of the date of the PAA.

Distribution

The master 'controlled' plan will be held within the Project Alliance document management system, where it can be accessed by Alliance Project Team (APT) personnel and supply chain partners as required.

Issue, revision and re-issue

This plan will be reviewed and updated periodically throughout the duration of the Project to ensure that its content reflects the PTA's specific requirements and expectations. Revisions of this plan may also be required in changing circumstances or to implement identified opportunities for improvement.

Revisions will be proposed by senior relevant APT personnel and reviewed, developed and finalised in conjunction with the Alliance Manager. Revisions of this plan must not reduce the scope or level of management control.

Revisions may result from: Management review

- Changes to the standard system
- Improvement initiatives and process changes within the Project
- Audit (either internal or by external parties)
- Client complaints or non-conformance reports
- Legislative changes
- Lessons learnt from internal and external investigations. The Alliance Manager will refer revisions of this 'approved' plan to the Alliance Management Team (AMT) for endorsement prior to issue to the ALT for approval. Once approved by the ALT, subsequent updates will be numbered consecutively and transmitted to controlled copy holders.

Updates to this plan and any other Alliance sub-plans, will be provided to the ALT for approval, in accordance with clause 11.5f of the Project Alliance Agreement.

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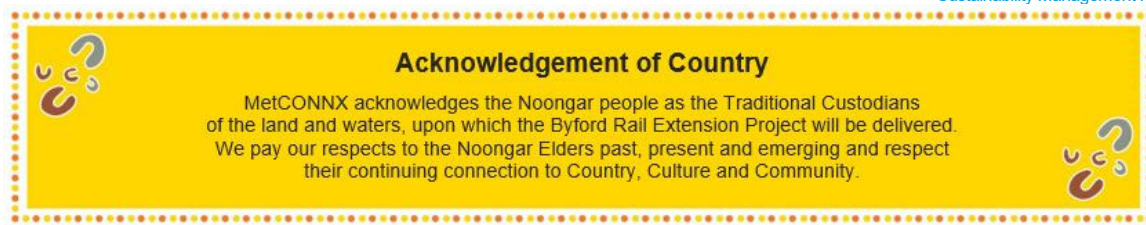
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Terms and definitions

The terms, abbreviations and acronyms used in this plan are defined in Table 1.

Table 1: Terms and Definitions

Term/Abbreviation	Definition
BaU	Business as Usual
CPTED	Crime Prevention Through Environmental Design
CSF	Credit Summary Forms
EPD	Environmental Product Declaration
GBCA	Green Building Council of Australia
GS	Green Star
GSAP	Green Star Accredited Professional
IS	Infrastructure Sustainability
ISAP	Infrastructure Sustainability Accredited Professional
ISC	Infrastructure Sustainability Council
LCA	Life Cycle Assessment
MLA	METRONET Lead Agency
MO	METRONET Office
ODS	ODS Track (web-based submission management framework)
PTA	Public Transport Authority
R1	Round one of submissions for sustainability ratings (e.g. IS or GS)
SDGs	United Nations Sustainable Development Goals
SLC	Sustainability Leadership Committee
SuMP	Sustainability Management Plan
SWTC	Scope of Work and Technical Criteria
UN	United Nations



1. Project overview

1.1 METRONET Vision and Objectives

As one of the largest single investments in Perth’s public transport, METRONET will transform the way the people of Perth commute and connect. It will create jobs and business opportunities and stimulate local communities and economic development to assist communities to thrive. The METRONET vision is for a well-connected Perth with more transport, housing and employment choices. In delivering METRONET, the WA Government has considered peoples’ requirements for work, living and recreation within future urban centres with a train station at the heart.



The objectives are to:

- Support economic growth with better-connected businesses and greater access to jobs
- Deliver infrastructure that promotes easy and accessible travel and lifestyle options
- Create communities that have a sense of belonging and support Perth’s growth and prosperity
- Plan for Perth’s future growth by making the best use of our resources and funding
- Lead a cultural shift in the way government, private sector and industry work together to achieve integrated land use and transport solutions for the future of Perth.

1.2 Byford Rail Extension Overview

The Byford Rail Extension (BRE) Project has been identified as an essential component of the METRONET program. The Project will extend the electrified passenger rail service from Armadale to Byford, providing a strong transport connection between these two centres, supporting economic growth and providing greater access to jobs. The Project has been developed in line with policy objectives for highly integrated transport and land use planning.



QR code for animated Project video

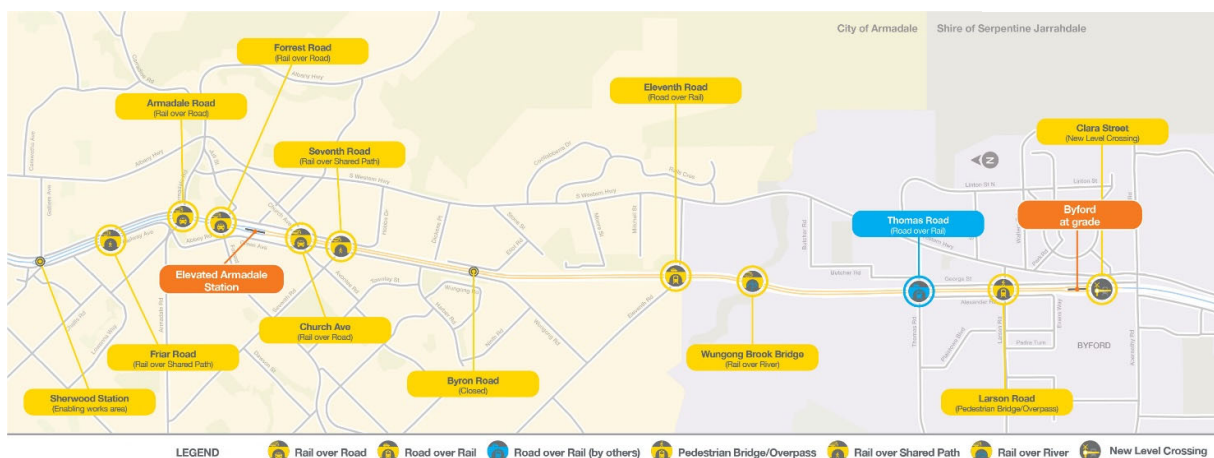


Figure 1: METRONET Byford Rail Extension Project

1.2.1 Project features

Transport infrastructure works for the BRE Project include:

- Demolition of existing station at Armadale and construction of a new elevated station
- Construction of a new Byford station at grade (Base Case)
- Construction of approximately 8km of dual track narrow gauge electrified passenger railway line extending from Armadale station to the newly created Byford station, with a dedicated platform for the Australind line
- Removal of level crossings between the Byford and Armadale stations
- Construction of PSPs and associated infrastructure (including 'rail over road' and 'road over rail' bridges and roads)
- Parking areas at Armadale and Byford stations
- Bus interchange at Armadale and Byford stations
- Upgrade of local roads surrounding both Armadale and Byford stations.



QR code for animated
scope flythrough

1.2.2 General scope of works

The Project's general scope of works includes designing, procuring, manufacturing, constructing, installing and commissioning all rail infrastructure and ancillary works to support an electrified operational passenger rail between Armadale and Byford Stations. Also, in the case of the Australind train service, tying into the non-electrified rail network south of Byford Station.

The Project activities include all site investigation, design, planning, scheduling, procurement, cost control, approvals, construction, OH&S management, environmental management, quality management, testing and commissioning, Entry Into Service (EIS), training and operational readiness required to tie the rail extension to Byford into the existing rail network including the associated road, utilities and other required works to interface with adjacent works and contracts. This will include bulk earthworks and retaining structures, grade separations, roads, and drainage, the demolition and removal and treatment of waste material and contaminated material resulting from construction of the Works, and temporary works constructed for the purpose of facilitating the Works.

The project scope also includes any new road works, modifications to existing roads and signalised intersections, utilities (diversion, protection, and new installation) and any other ancillary works to enable the BRE Project.

1.2.3 Future Proofing the works

As part of the Project, space must be allowed within the rail corridor for the option of a 4-track scenario for a potential high-speed regional service from Bunbury. The additional 2 tracks shall be constructed in the eastern half of the rail corridor, so that future infrastructure can be constructed without impacting on existing rail operations. The Project should also allow for the possibility of future extension of the electrified line south of Byford to Mundijong, and a future stabling yard south of Abernethy Road.

The design and delivery of the main works package for the BRE Project is broken into three distinct stages:

- Alliance Development Stage
- Project Alliance Reference Design Stage
- Project Alliance Delivery Stage (Detailed Design through to Project close-out).

1.3 Key Project Objectives, Key Compliance Objectives and Critical Success Factors

MetCONNx and the PTA will form an integrated, collaborative Project Alliance to deliver rail infrastructure that reflects our absolute commitment to achieving the Project Objectives and delivering positive outcomes for the State.

The following image demonstrates how we have mapped each Key Project Objective in the Project Alliance Agreement (PAA) against the Critical Success Factors and Key Compliance Objectives to achieve best-for-project outcomes.

Key Project Objectives	Critical Success Factors for Successful Project Delivery
<p>Implementation of a robust and co-operative team culture, specifically:</p> <ul style="list-style-type: none"> • Assessment of risk and compliance with rail and occupational safety requirements • Project controls • Engineering assurance, including quality assurance and quality control processes • Resolution of unforeseen situations 	<ul style="list-style-type: none"> • Development of a project culture that results in the Successful Proponent developing core behavioural values and driving principles required to achieve the Alliance's goals. • Longevity and stability of key alliance personnel (i.e. Alliance Manager, ALT and AMT). • Implementation of the PTA mandated systems (i.e. TeamBinder, Primavera P6, TILOS) and an appropriate finance management system accepting of the PTA's existing cost breakdown structure • The successful management of interfaces with others on a site that is heavily constrained and with limited access. • The successful management and staging of works to reflect staged and constrained site access.

Key Project Objectives		Critical Success Factors for Successful Project Delivery		
Timely delivery of the Works to achieve the Project milestones in accordance with the agreed program.		<ul style="list-style-type: none"> Development of sufficiently well-developed designs to inform: <ul style="list-style-type: none"> Detailed construction methodology Detailed schedule including utilities and third-party services relocations works Detailed staging analysis including rail systems changes and shutdown requirements Detailed commissioning activities plan including all rail systems changes Timely development of reference design fully integrated across all relevant engineering disciplines Subsequent cash-flow management and financial forecasting, scheduling and value-earned calculation and determination Timeliness for completion of all Project phases consistent with the SWTC Timely progress towards end of construction and completion of project close-out requirements to achieve Final Asset Acceptance and compliance with all PAA obligations. 		
The inclusion of processes that will embrace and promote open tendering processes and promote the development of work packages that encourage and enable tendering by second and third tier suppliers for construction subcontracts, engineering design and other professional services.		<ul style="list-style-type: none"> For professional service providers, material suppliers and other contract/subcontract service providers, implementation of proven, mature supply chain engagement process, including tender review, contract award and project integration that offers opportunity and security of payment Proven, mature supply chain engagement process for provision of labour hire services compliant with relevant Statutory Requirements in relation to industrial relations and safety, maintenance of employee standards and conditions and security of employee payments Ability to develop contracts and terms and conditions in keeping with spirit of Alliance relationship and principles, appropriate and commensurate with size, complexity and value of proposed subcontracted packages in accordance with Best Industry Practice. 		
Compliance with the Western Australian Industry Participation Strategy (WAIPS) and building industry sustainability.				
Optimisation of operational and Whole of Life Costs.		<ul style="list-style-type: none"> Sustainability considerations and outcomes for the whole of life of the Works. 		
Ensuring appropriate consultation and integration with community and stakeholders.		<ul style="list-style-type: none"> Engage with all relevant third-party asset owners and stakeholders, including, but not limited to, the City of Armadale, Shire of Serpentine-Jarrahdale, Main Roads WA, Byford Glades Residents Association, Byford Scarp Residents Association, land developers and relevant trade unions. Engage with all relevant third-party asset owners to ensure the effective management of impacted utilities and services Effective management of internal PTA interfaces and PTA contractors with technical and operational personnel Constant and effective engagement with PTA in design meetings, work planning and executing shutdowns. 		
Providing passengers with safe and secure services and facilities.		<ul style="list-style-type: none"> Compliance with the requirements of the ONRSR Completed stations and bus transfer infrastructure able to deal successfully with people movement. 		
Minimising disruption to current and anticipated rail operations.		<ul style="list-style-type: none"> Liaison and interaction with PTA rail operations team to dictate when available network shutdowns occur and to implement contingency plans in the event of adverse events Minimised impact on public transport services disruption Effective management of existing railway infrastructure asset protection. 		
Recognising the Industrial Relations Objectives.		<ul style="list-style-type: none"> A proven and successful IR plan that delivers a collaborative worksite, genuine collective agreement making when collective agreements are made, good faith in negotiations and dispute resolution, and respect for trade union rights of entry. 		
Key Compliance Objectives				
Meeting all obligations to impacted stakeholders (and demonstrating genuine sensitivity to operations personnel, adjoining businesses, communities, and residents).	Compliance with the Scope of Works and Technical Criteria.	Protecting and minimising disruption to all existing facilities, infrastructure, properties or public utility services.	Compliance with all Statutory Requirements and State Government policy requirements for construction work.	Compliance with all environmental conditions and minimising adverse impact to the Environment.

Figure 2: Key Project Objectives, Critical Success Factors and Key Compliance Objectives

1.4 Alliance Vision and Delivery Approach

The BRE Project will be delivered under an alliance contract to support the management of project and stakeholder interfaces and to mitigate project risks. A collaborative alliance approach will see the Works carried out in a cooperative, coordinated and efficient manner, in compliance with the Alliance Principles.

MetCONNX understands that the successful delivery of the Project is critically linked to meeting the PTA’s Key Project Objectives. These objectives have shaped our vision for the Project that is around delivering a high-quality product and creating exceptional value-for-money. We are committed to a no-blame culture and to the prompt and mutual resolution of any issues that may arise.

During the AD Stage, an interactive ALT Visioning Workshop was held with representatives from the PTA and MetCONNX to develop a suitable Alliance Vision for the Project, refer .

“ Collaborating to deliver excellence in transport infrastructure with certainty which connects and activates the community, for current and future generations ”

Figure 3: AD Stage Alliance Vision Development Outcomes (developed with the PTA)

To support the realisation of this vision, we will develop a robust and highly collaborative alliance culture in which everyone challenges 'business-as-usual' and pursues better outcomes in the design and construction of the Project. In line with this, during the AD Stage the MetCONNX team refined their priorities for the Project as being:

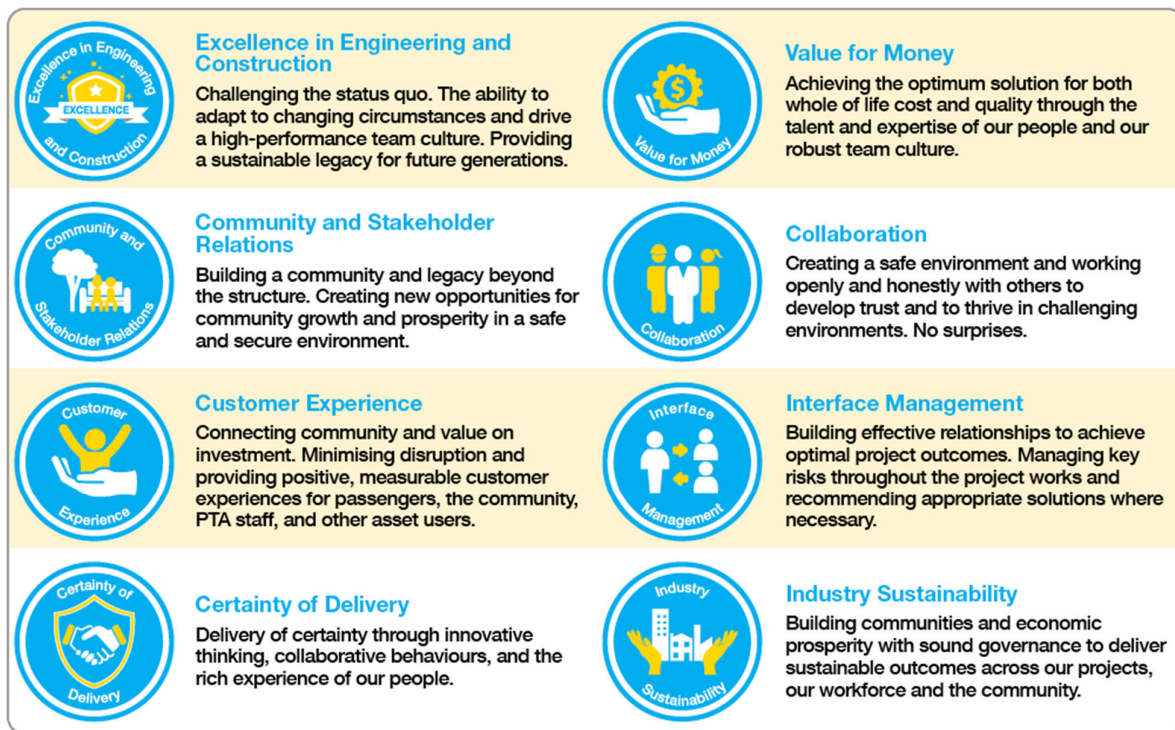


Figure 4: MetCONNX Priorities aligned with Key Project Objectives

1.5 Alliance Governance

The Project Alliance Agreement (PAA) provides the legal and commercial framework for delivering the Project as an Alliance. The ALT comprises two representatives from the Owner Participant and one representative from each of the NOPs. Membership of the ALT is limited to no more than five representatives in total.

During the AD Stage alliance governance has been established and driven by the ALT. The ALT provides strategic leadership ensuring that the Alliance performance and progress is achieved, and escalated issues are promptly resolved.

The Alliance Manager, in consultation with the AMT, will ensure appropriate resources are engaged and mobilised on the Project to provide adequate resources to implement the requirements of this Plan.

The Project Alliance will adopt MetCONNx partner Laing O'Rourke's best corporate governance practices on the Project, on a best-for-project basis.

1.6 Project Management Framework Integration

The Project Management Framework integrates the Project's requirements and MetCONNx partner Laing O'Rourke's proven project-specific management plans and sub-plans to facilitate a seamless approach to design and construction, assurance, organisation and value creation management.

Underpinned by strong governance and compliance systems, the framework embodies the PTA's Project Objectives and Critical Success Factors.

The Alliance Management Plan (R30-MET-PLN-PM-000-00001) is a key plan in this framework, and it documents, amongst other things, the performance expectations of the ALT and the AMT, and defines how the performance of the ALT, Alliance Manager and AMT will be monitored, measured and reviewed during the course of the Project.

As the primary and overarching plan, it will:

- Describe the Alliance governance structure, authorisations limits and delegated authorities
- Support Alliance Project Team personnel in managing and performing obligations to fulfil the requirements of the approved SWTC, in accordance with the PAA.

This plan is a key plan in the Project management plan framework. This plan should be read in conjunction with the management plans listed in Figure 6.

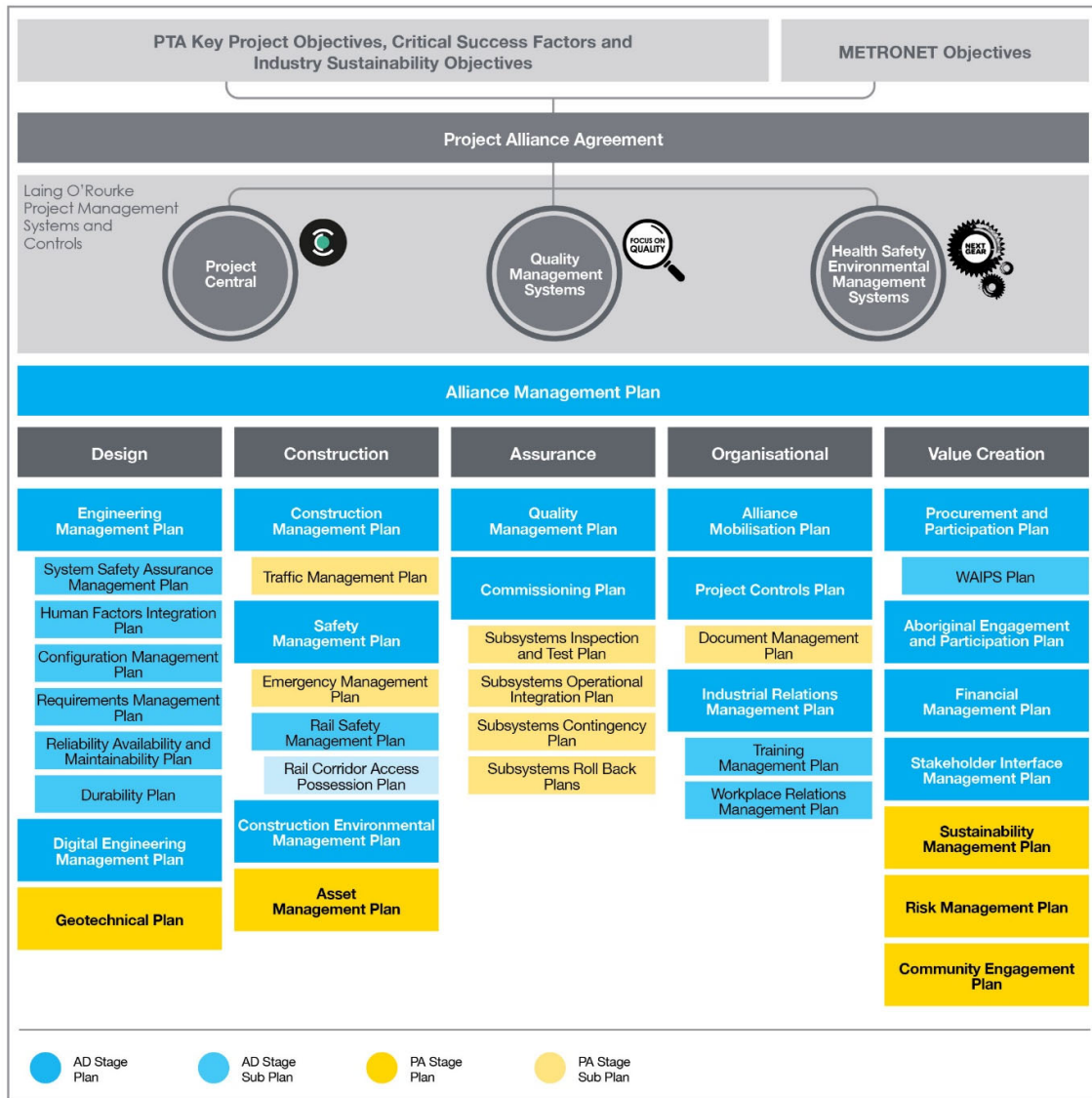


Figure 5: Project management framework Integration

2. Purpose of this plan

2.1 Introduction

The purpose of this Sustainability Management Plan (SuMP) is to establish the requirements, and governance for a Sustainability Framework to facilitate the management, implementation and delivery of the Project and ensuring that The Alliance deliver on the high-level project outcomes as per the Projects Sustainability Charter/Policy (Appendix A).

This SuMP is an integral part of the MetConnx project management system used to deliver the Byford Rail Extension (BRE) project for METRONET. In accordance with Laing O'Rourke's continuous improvement strategy, the plan is to be monitored, reviewed and updated to address changes in the management process over the project's lifecycle.

2.2 Purpose

The SuMP provides a systematic and integrated methodology for planning, design, procurement, construction, commissioning, completion and handover stages of the BRE project. This SuMP is

applicable to all work packages that are delivered by the project. The SuMP provides guidance on the management processes that will facilitate the timely implementation of the works.

2.3 Objectives

The objective of this SuMP is to outline how The Alliance will consider and implement social, environmental and economic considerations into the Project Works and across the whole of the Asset's life. Commitments in this plan are aligned to the wider METRONET project with specific objectives and targets in relation to the BRE Project defined in the following documents:

- METRONET Sustainability Strategy (PRO-MNO-MET- SU-PLN-0002_6)
- BRE Sustainability Action Plan (BRE-MNO-MET-SU-PLN- 0001) and

The SuMP will be implemented in lieu of the development of a specific IS Management Plan.

2.3.1 Plan Compliance to SWTC Book 2

The minimum requirements for this plan are as defined in the BRE Scope of Work and Technical Criteria (SWTC), Book 2: Management Plan Requirements (BRE-PTAWA-PM-RPT-00003). All SWTC Books 1 through 5 have been considered in the development of this plan. Appendix F Compliance matrix where each Book 2 SWTC requirement and specified standard is addressed within this plan, together with a cross-reference to the corresponding DOORS NG reference.

2.4 Targets

A full list of Sustainability targets for both the IS and Green Star certifications are detailed in Appendix D and Table 9. A copy of the publicly published Project Sustainability Charter is provided in Appendix A and is available to member of the public on METRONET's Byford Rail Extension website, (LINK here

<https://www.metronet.wa.gov.au/Portals/31/Project%20Documents/Byford%20Rail%20Extension/Byford%20Rail%20Extension%20Sustainability%20Charter.pdf> .

Section S6.11 of the Project PAA details 'KPI 4.1 - Sustainability Rating' which provides for the commercial incentivisation of good sustainability performance. The incentive is in the form of a 'pain share, gain share' structure which rewards success in attaining points within the ISC and Green Star ratings and actively disincentivises underachievement.

2.5 Contract Deliverables

Appendix F details the contractual deliverables for the Sustainability Management Plan as a Compliance Matrix that references where each Book 2 SWTC requirement and specified standard is addressed within this Plan, together with a cross-reference to the corresponding DOORS NG reference.

2.6 Related and Referenced Documents

To ensure that MetCONNx is governed by a fit for purpose Sustainability Framework (Table 2), the BRE project will be delivered under MetCONNx partner Laing O'Rourke's ISO-Certified Integrated Group Management System (iGMS) with alignment and adjustments made to integrate project specific management requirements for the project. The following management plans and documentation interface with this Sustainability Management Plan, providing relevant sustainability content for reference.

Table 2: Related and referenced documents

Doc No.	Doc Name
Industry Standards	
	Green Star - Railway Stations v1.1, Green Building Council Australia
	Infrastructure Sustainability rating tool version 2.1 Technical Manual and associated guides*
	Waste Avoidance and Resource Recovery Strategy 2030
METRONET DOCUMENTS	

Doc No.	Doc Name
BRE-MNO-MET-AE-REF-0001	BRE – Noongar Cultural Context (Beenyup)
BRE-MNO-MET-SU-PLN-0001	Byford Rail Extension - Sustainability Action Plan
BRE-MNO-MET-SU-REG-0001	Byford Rail Extension (BRE) - Sustainability Opportunities Register
BRE-MNO-MET-SU-RPT-0002	Sustainability IS Rating Materiality Review
BRE-MNO-WSP-PL-RPT-0004	Byford (Beenyup) Station Precinct – Preliminary Place Plan
BRE-MNO-WSP-SU-REG-001	Climate Change and Natural Hazard Risk Assessment Register
	Public Art Guide – Armadale and Byford Stations
	Aboriginal Engagement Strategy – Gnarla Bidji
PRO-MNO-MET-AR-GDL-0001	Station Precinct Design Guide
PRO-MNO-MET-AS-PLN-001	Public Art Strategy
PRO-MNO-MET-AS-REF-0001	Public Art Toolkit
PRO-MNO-MET-CI-GDL-0001	Guide to Water Sensitive Urban Design (WSUD) for Public Transport Infrastructure in WA
PRO-MNO-MET-SU-GDL-0001	Base Case Framework – Transport Infrastructure
PRO-MNO-MET-SU-GDL-0003	Green Star Volume Certification Rule Book
PRO-MNO-MET-SU-GDL-0004	Project Annual Sustainability Report Guideline
PRO-MNO-MET-SU-PLN-0002	METRONET Sustainability Strategy
PRO-MNO-MET-SU-PLN-0003	Sustainability management Plan
PRO-MNO-MET-SU-PLN-0004	Water Management Plan for METRONET Transport Infrastructure and Stations – Scope of Work
PRO-MNO-MET-SU-RAS-0001	METRONET Program Climate Change Network Vulnerability and Risk Assessment
PRO-MNO-MET-SU-REG-0001	METRONET Climate Change and Natural Hazard Risk Assessment Register
PRO-MNO-MET-SU-RPT-0001	METRONET Program Climate Change Network Vulnerability and Risk Assessment
PRO-MNO-MET-SU-RPT-0002	Water Conservation and Efficiency Feasibility Study for Transport Infrastructure in Perth
PRO-MNO-MET-SU-SPC-0001	Lifecycle Assessment Specification
PRO-MNO-MET-SU-SPC-0002	METRONET ESD Specifications for Green Star Stations (Standard Credits for Volume Certification)
PRO-MNO-MET-SU-TMP-0002	Sustainability Quarterly Report Template for Pilot Phase
BRE-PTAWA-PM-RPT-00001. to 0008	Scope of Work and Technical Criteria Books 1A, 1B, 2, 3A, 3B, 3C, 4 and 5
*Subject to approval of Memorandum of Understanding and associated SWTC updated requirements	

2.6.1 Interfacing Plans and Sub-Plans

The Alliance Plans in table 2 will interface with this Sustainability Management Plan and will form part of the overall Sustainability Framework. Table 3 also indicates where plans may contribute to the attainment of the IS-Rating credits.

Table 3: Interfacing Management Plans within the Project Management Plan Framework

Plan No.	Plan Name	Interface with this SuMP	IS Rating Credit Link
Alliance Management Plans			
R30-MET- PLN-PM-000-00001	Alliance Management Plan	Outlines Project organisational structure (outside of the design- specific roles)	Lea-1, Spr-1, Spr-2, Spr-3, Ecn-1, Sta-1, Wfs-2, Wfs-2, Wfs-3, Wfs-4
R30-MET-PLN-EA-000-00003	Requirements Management Plan	Process of integration of sustainability requirements into design and other plans	

Plan No.	Plan Name	Interface with this SuMP	IS Rating Credit Link
R30-MET-PLN-RI-000-00001	Risk Management Plan	Provides detail the opportunities and risk assessment mechanism to be implemented on the Project	Lea-2, Spr-1, Res-1, Res-2, Ecn-5
R30-MET-PLN-EN-000-00001	Construction Environmental Management Plan	Outlines the requirements, commitments, management and approach for the Alliance works, setting out project specific environmental processes to satisfy the Project requirements	Ene-1; Env-1; Env-2, Env-3; Env-4; Env-5; Rso-1, Rso-2; Rso-3; Rso-4; Wat-1; Wat-2; Eco-1; Eco-2; Her-1; Wfs-5
R30-MET-PLN-EA-000-00004	Engineering Management Plan	Defines the engineering requirements for the Project and establishes project-specific procedures to enable the Project Alliance to generate an efficient design that fulfils the PTA's requirements	Con-2, Lea-1; Lea-2, Res-1; Res-2, Ecn-1; Ene-1; Ene-2; Gre-1; Rso-1,
R30-MET-PLN-PR-000-00001	Procurement & Participation Plan	Describes the procurement process (including the evaluation process) and demonstrates compliance with requirements of the West Australian Induction Participation Strategy (WAIPS) and the approved Aboriginal Engagement Participation Plan (AEPP) and other economic and industry objectives	Spr-1, Spr-2, Spr-3, Rso-1, Rso-6, Rso-7
R30-MET-PLN-PC-000-00001	Project Controls Plan	Provides detail on Work Package Breakdown Structures, Design Program and Change Management procedures	Lea-1, Spr-1, Spr-2, Ecn-1, Ecn-4
R30-MET-PLN-QA-000-00002	Quality Management Plan	Provides detail on Quality Assurance processes, during procurement, delivery and closeout	Lea-1, Rso-6, Ecn-1
R30-MET-PLN-SM-000-00001	Stakeholder Interface Management Plan	The SIMP will ensure that the information required for internal and external project stakeholders associated with the BRE Project is efficiently and effectively communicated in accordance with the project delivery sequence and timeframes. The SIMP will ensure a high degree of collaboration and co operation across the BRE scope of works.	Lea-1, Lea-3, Sta-1, Sta-2, Leg-1, Her-1, Res-1, Res-2
R30-MET-PLN-AE-000-00001	Aboriginal Engagement and Participation Plan	Establishes Aboriginal participation management procedures to be followed by the Alliance Project Team and its subcontractors throughout all phases of the Project	Lea-1, Her-1, Sta-2, Wfs-1, Wfs-2, Wfs-4
R30-MET-PLN-SM-000-00002	Community Engagement Plan	Strategies and methods to engage and work with Project stakeholders and members of the community in accordance with contractual requirements and Project Objectives and deliverables	Lea-1, Sta-1, Sta-2, Leg-1, Her-1, Res-1, Res-2 Wfs-1, Wfs-2, Wfs-4
Sub-Plans to this SuMP			
R30-MET-PLN-SU-000-X (TBC)	Whole of Life Improvement Strategy	Details the process for integrating life cycle assessments into design development and decision making. Ensures whole of life cost savings for operations and maintenance a re prioritised.	Ecn-1; Ecn-4; Rso-6
R30-MET-PLN-SU-000-X (TBC)	Water Management Plan	Identifies and allocates water sources, following the principles along the hierarchy of reduce, reuse, recycle.	Env-1; Wat-1; Wat-2
R30-MET-PLN-SU-000-X (TBC)	Resource Efficiency Action Plan	Support the implementation of practicable initiatives to achieve landfill avoidance targets.	Ene-1; Rso-1; Rso-2; Rso-3; Rso-4; Wat-1

Plan No.	Plan Name	Interface with this SuMP	IS Rating Credit Link
R30-MET-PLN-SU-000-X (TBC)	Resilience Risk Action Plan	Develop asset design safeguards and future proofs for changing transport modes and technologies.	Res-1
R30-MET-PLN-SU-000-X (TBC)	Climate Change and Natural Hazard Adaptation Plan	Identify and develop adaption measures for a changing climate and natural hazards.	Res-2

2.7 Document Submission and Approval

Laing O'Rourke will provide the client representative with a copy of the SuMP via the agreed contract document control requirements.

If required, comments will be addressed and resubmitted for client approval.

2.8 Distribution control

2.8.1 Controlled copies and distribution policy

A controlled master copy of this plan will be stored on the company's project drive. All company employees associated with the project will have access to this plan.

PDF copies will be issued via a document control process to the client representative or as stated within the contract.

3. Context

3.1 Understanding the Project's Context

3.1.1 Global Sustainability Context

On August 2, 2015 at the UN headquarters, consensus was reached on a critical document "Transforming Our World: The 2030 Agenda for Sustainable Development". The 2030 Agenda was formally adopted on September 25, 2015 at a UN Summit. The document includes the 17 Sustainable Development Goals, which were supported by 169 specific targets. The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides guidance of the international sustainability approach.

3.1.2 Australian Sustainability Context

Appendix G contains the 'Transforming Australia SDG Progress Report 2020 Update' which measures Australia's performance against a set of 56 indicators linked to the United Nations Sustainable Development Goals (SDGs). The update takes into account the impact of the Covid 19 Pandemic on Australia's delivery of the SDGs.

3.1.2.1 2020 Australian SDG Performance: General Outcomes:

Key findings detailed in the report 'Transforming Australia SDG Progress Report 2020 Update' (appendix G) shows that Australia is performing well in health and education, but is failing to reduce CO2 emissions, waste and environmental degradation, and to address cost of living pressures and economic inequality.

Of the 56 indicators (supporting the SDG targets) examined in this report:

- only 12 are assessed as on track to meet the 2030 targets.
- 23 indicators are assessed as off track,
- 11 are classified as breakthrough needed and
- 10 need improvement.

Some of the key findings (economic, social, environmental) are set out below.

Economic

- Wealth inequality has increased significantly, with the share of household net worth of the poorest 40% declining by 30% since 2004.
- Women, young people and those without high school qualifications are more likely to have had their employment disrupted by COVID-19.

Social

- Australians are living longer but are more obese and, since the pandemic, are drinking more alcohol.
- Women have been disproportionately affected by the pandemic and are more likely to lose their jobs and experience psychological distress. Women also continue to lose out on pay equality and housework parity.

Environmental

- Australia's greenhouse gas emissions have declined only marginally since 2000 and little progress has been made since 2013. Australia is well off track to meet a 2030 emissions target that is consistent with the Paris Agreement to keep global warming to well below 2 degrees Celsius.
- Australia's per capita material footprint is one of the highest in the world — more than 70% above the OECD average — and rising.

It's noted that the BRE project has a scope influence on a local level during construction & operation, however through the actions of this plan, the suit of plans in Table 2 and through the influence of corporate wellbeing programs, diversity and equality programs, local industry participation etc, there is scope to contribute positively to the performance measures above.

3.1.3 METRONET Sustainability Context

The METRONET Sustainability Strategy (PRO-MNO-MET-SU-PLN-0002) was developed to ensure the project's delivery in an economically, socially, and environmentally responsible manner. The pillars and objectives of this strategy are aligned to the UN Sustainable Development Goals (See appendix H). Refer to this document for further detail on METRONET's Sustainability Strategy.

The METRONET Sustainability Strategy:

1. Sets expectations for how sustainability transferred into practice across the different phases and components of METRONET
2. Identifies a comprehensive set of sustainability focus areas and target outcomes to be achieved Program Wide and at a Project Specific level.
3. Provides guidance to the planning teams, delivery agencies and delivery contractors.
4. Creates a clear reference back to the United Nations Sustainable Development Goals (UN SDG's) (Appendix H).

3.1.4 MetCONNx Sustainability Context

MetCONNx has defined its approach to sustainability through the development of a Project Sustainability Charter (appendix A). This charter will be made publicly available on the METRONET BRE project website within the first six months of contract commencement. The charter is the culmination of a series of reviews and assessments to understand the sustainability context of the project. Activities undertaken include:

- Aligning with the national and regional context of the BRE project.
- Defining the material issues of the BRE project, through the use of the ISC materiality assessment tool.

- Understanding project contribution to the METRONET Sustainability objectives and deliverables, through the provision of deliverables defined in the Sustainability Action Plan.

3.1.4.1 Sustainability Rating Tool Project Boundaries

The BRE Project will be delivered as an integrated transport and land use program which will have a myriad of different components, and therefore no single sustainability certification scheme is considered to adequately cover all components of the project, as decided by METRONET. The following certification schemes were identified to align to the different components and for the purposes of the sustainability benchmarking for the BRE Project, the project boundaries will be set up in accordance with METRONET’s Sustainability Strategy for IS and Green Star, as follows:

Table 4: Rating tool boundaries

Rating Tool	Certification Boundary
Armadale and Byford Station Infrastructure <ul style="list-style-type: none"> • Office and administrative areas • Platforms and Concourse areas • Storage areas, toilets, and changing rooms • Landscape areas • Car parks • Bus Interchanges, and • Kiosks / Retail 	GBCA Green Star Railway Stations v1.1 Rating (Design & As Built)
Whole of Project <ul style="list-style-type: none"> • Station infrastructure (inclusive of above elements) • Level crossing removals • Rail corridor and linear infrastructure • Bridges, retaining walls & structures • Roadworks 	ISC Infrastructure Sustainability V2.1 (Design & As Built) *

*Subject to approval of Memorandum of Understanding and associated SWTC updated requirements

Interface between the third-party certification schemes for IS and Green Star, will be workshopped with Infrastructure Sustainability Council of Australia (ISC), the Green Building Council of Australia (GBCA).

3.1.5 Weightings Assessment

As the BRE project is targeting an IS Rating certification for Design and As-Built under the IS Rating Tool V2.1*, a weightings assessment will be undertaken using the ISC tool. This tool utilises a scoring methodology that relies on distributing the points which can be achieved based on the significance/ materiality of the credit topic within the global, regional, and of course, local context.

Each score within each credit can be adjusted on a scale depending on whether the issue is of material significance and is within the scope of influence of the project, i.e. scores are weighted and a bespoke score card developed for the project. The credit weightings resulting from the materiality assessment will inform where effort is best spent to achieve a target level of IS Rating (i.e. 50 points, silver rating).

This materiality assessment will form part of the ISC Kick-Off Workshop to identify and prioritise the sustainability topics for inclusion in the sustainability targets, project sustainability charter and development of the IS pathway. This will follow the guidance provided in Byford Rail Extension Sustainability IS Rating Materiality Review (planning phase) (BRE-MNO-MET-SU-RPT-0002).

*Subject to approval of Memorandum of Understanding and associated SWTC updated requirements

4. Leadership and Commitment

4.1 Sustainability Policy

A Sustainability Charter has been developed for the BRE Project (Appendix A). This charter will be made publicly available on the METRONET BRE project website within the first six months of contract commencement.

4.2 Roles, Responsibilities and Authorities

MetCONNX have dedicated personnel within the project team to lead sustainability delivery. Sustainability responsibilities for the Project will be shared across the Alliance Leadership Team, Alliance Management Team and Alliance Delivery Team. See table 5 for MetCONNX roles and responsibilities. Sustainability Champions will be identified within the Alliance (e.g.: within the Engineering /design/ construction/ procurement/ community/ workforce and environment disciplines). These people will assist in embedding and implementation of initiatives derived from the BRE Project sustainability requirements listed in Table 2.

Dedicated sustainability roles will be embedded in the Design Team during the design phase of the project and transition to the Construction delivery team at the end of design. See appendix E for a project sustainability organisational chart.

Table 5: MetCONNX Roles and Responsibilities for Sustainable Delivery

Role	Responsibility
Alliance Manager	<ul style="list-style-type: none"> Overall responsibility for Alliance delivery against METRONET Sustainability Strategy and delivery phase tasks and deliverables Approve the SuMP and ensure that the SuMP is effectively implemented and maintained Ensure that independent audits of the Sustainable Management System are conducted by an independent reviewer Review sustainable performance through the monthly reporting cycle Authorise resourcing for sustainable compliance Resolve major issues which cannot be resolved by the Design/Construction Manager Participate in Sustainability Workshops, monthly Sustainability Leadership Committee and quarterly Project Progress Meetings (as required) Responsible for meeting assigned project sustainability targets listed in Table 9. Provide leadership oversight and approval of relevant documentation for IS Rating, inclusive of Lea-1, Lea-2, Sta-2, Wfs-3.
Project Sustainability Manager (ISAP)	<ul style="list-style-type: none"> Sustainability Manager will be available to the project as a 1.0 FTE resource with more than 5 years relevant experience, reporting directly to the Alliance Manager. Lead, Plan, advise, and have oversight for the implementation of sustainability requirements, initiatives, objectives and targets derived from the BRE Project sustainability requirements listed in Table 1. Attend fortnightly Alliance Management Team (AMT) Meetings Coordinate preparation and review of the Project Sustainability Management Plan (SuMP) and Sub-Plans Manage ongoing review and updates to the SuMP and Sub-Plans Coordinate and collate quarterly and annual sustainability reporting for the project Coordinate sustainability audits of Contractor activities against the SuMP and Strategy and as required under ISC and GBCA. Coordinate third party certification submissions and verifications Support the Alliance Manager, Design Manager and Construction Manager to deliver against sustainability requirements, including coordinating required workshops and engagement with the MLA Provide support to the AMT to enable them to meet their sustainability commitments Ensure sustainable requirements for Green Star and ISC rating for the Project are met Ensure that non-conformances and sustainability related incidents, emergencies or deviations from the SuMP, are recorded, with written reports provided to the PTA's representative. Liaise with the required stakeholders to confirm the nature of the corrective action required and comply with the timeframe within which corrective

Role	Responsibility
	<p>actions must occur.</p> <ul style="list-style-type: none"> • Facilitate monthly Sustainability Leadership Committee Meetings • Facilitate and/or participate in Sustainability Workshops which include but are not limited to Project Sustainability Alignment, Project Sustainability Opportunities, Lifecycle Assessment, Climate Change Risk Assessment, ISC and Green Star related Workshops (as applicable). • Ensure that sustainable monitoring, records and files are collected and maintained. Including sub-contractor records. • Assist in driving sustainability culture across the various Project functions • Audit and check to ensure that sustainability controls, materials and equipment are maintained in alignment with sustainable management plans • Ensure that all personnel on site receive appropriate sustainability-related induction and training and are aware of their responsibilities under relevant legislation and the contract • Report to the Project Services Manager/Lead on the Project performance and improvement opportunities • Undertake and participate in Leadership Activities which include but are not limited to – design and development, construction processes and management, community liaison, procurement, opportunities and risk assessment. • Liaise with the Green Building Council of Australia (GBCA) on behalf of the Alliance team. • Provide clear and timely response to formal queries and requests for information. • Overall responsibility for final Green Star Design and As-built submissions for audit by the GBCA. • Coordinate and deliver sustainability training and awareness programs as outlined in table 12.
<p>Project Sustainability Advisor (ISAP)</p>	<ul style="list-style-type: none"> • Sustainability Advisor will be available to the project as a 0.2 FTE resource with less than 4 years relevant experience, reporting directly to the Sustainability Manager. • Assist in the planning and coordination of the implementation of sustainability requirements, initiatives, objectives and targets derived from the BRE Project sustainability requirements listed in Table 1. • Assist preparation and ongoing review of the Project Sustainability Management Plan (SuMP) and Sub-Plans • Assist and provide input for the quarterly and annual sustainability reporting for the project • Assist with sustainability audits of Contractor activities against the SuMP and Strategy and as required under ISC and GBCA. • Assist third party certification submissions and verifications • Support the Alliance Manager, Design Manager and Construction Manager to deliver against sustainability requirements, including coordinating required workshops and engagement with the MLA. • Ensure all sustainable requirements for Green Star and ISC rating for the Project are met • Liaise with the PTA's representative on sustainability issues, including the written notification of non-conformances (incidents, emergencies or deviations from the SuMP) • Participate in monthly Sustainability Leadership Committee Meetings and quarterly Project Progress Meetings • Facilitate and/or participate in Sustainability Workshops which include but are not limited to Project Sustainability Alignment, Project Sustainability Opportunities, Lifecycle Assessment, Climate Change Risk Assessment, ISC and Green Star related Workshops (as applicable) • Ensure that sustainable monitoring, records and files are collected and maintained • Assist in driving sustainability culture across the various Project functions • Provide support to the AMT to enable them to meet their sustainability commitments • Ensure that non-conformances and sustainable incidents are recorded, with written reports provided to the PTA's representative. Liaise with the required stakeholders to confirm the nature of the corrective action required and comply with the timeframe

Role	Responsibility
	<p>within which corrective actions must occur.</p> <ul style="list-style-type: none"> • Audit and check to ensure that sustainability controls, materials and equipment are maintained in alignment with sustainable management plans • Assist to ensure that all personnel on site receive appropriate sustainability-related induction and training and are aware of their responsibilities under relevant legislation and the contract • Ensure that sustainability targets (as per) are met. • Maintain the project Opportunity Register and ensure conformance with METRONET requirements and the ISC and Greenstar rating tools. • Review and approve sub-contractor sustainability actions plans.
Alliance GSAP	<ul style="list-style-type: none"> • Support Project Sustainability Manager and advisor with all matters related to delivering a Green Star rating for each station. • Liaise with the GBCA on behalf of the alliance team. • Provide clear and timely response to formal queries and requests for information relating to the Green Star rating. • Overall responsibility for final Green Star Design and As-built submissions for audit by the GBCA.
Procurement Manager	<ul style="list-style-type: none"> • Have input into and comply with the Sustainable Procurement Policy. • Work with the Alliance Manager and Sustainability Manager to develop and implement the Sustainable Procurement Strategy for the project • Responsibility for delivery phase procurement tasks and deliverables to support certification under the ISC and Green Star for Design and As Built ratings • Responsible for meeting assigned project sustainability targets (as per). • Ensure the Sustainable Procurement strategy is implemented on the project in accordance with IS credits Spr-1, Spr-2 and Spr-3 • Encourage use of Sustainability Labelled Products in accordance with IS credit Rso-7 • Carefully select suppliers and subcontractors based upon their ability to meet stated sustainable requirements in consultation with the Project's Sustainability team • Ensure that purchase orders and agreements include sustainability requirements as necessary • Where practical, select materials which have least environmental impact. • Communicate sustainability requirements to prospective sub-contractors during the tender phase and incorporate sustainability expectations into sub-contracts.
Design Lead	<ul style="list-style-type: none"> • Responsibility for delivery phase design tasks and deliverables set out in the METRONET Sustainability Strategy and Contract • Responsibility for delivery phase design tasks and deliverables to support certification under the ISC and Green Star for Design ratings • Responsible for meeting assigned project sustainability targets (as per). • Provide oversight and direction in the implementation of the following IS credits during the design phase: Lea-2, Res-1, Res-2, Inn-1, Ecn-1, Ecn-4, Ene-1, Ene-2, Env-1, Env-2, Env-3, Env-4, Env-5, Rso-1, Rso-2, Rso-3, Rso-5, Rso-6, Wat-1, Wat-2, Eco-1 and Her-1 • Responsibility for the implementation of the following IS credit requirements in Design: Con-2 and Gre-1 • To facilitate LCA model development/review in line with design progression, including capturing key design decisions impacting on the LCA model • Work with the Alliance Sustainability Manager to prepare a Whole of Life Improvement Strategy • Ensure that internal audits of the system are conducted • Authorise expenditure on sustainable issues within limits of authority. Provide adequate resources to meet sustainable objectives • Resolve major issues which cannot be resolved by the Sustainability Manager. Ensure that project responsibilities and authorities are defined and communicated • Provide support for the Project's Sustainability Team • Ensure that the SuMP is effectively implemented and maintained • Report to ALT on the performance of the system and any sustainability non-conformances

Role	Responsibility
	<ul style="list-style-type: none"> • Ensure suppliers and subcontractors comply with requirements • Participate in Sustainability Workshops, monthly Sustainability Leadership Committee and quarterly Project Progress Meetings (as required).
Construction Lead	<ul style="list-style-type: none"> • Responsibility for the delivery phase construction tasks and deliverables set out in the METRONET Sustainability Strategy and Contract. • Responsibility for delivery phase construction tasks and deliverables to support certification under the ISC and Green Star for As Built ratings. • Responsible for meeting assigned project sustainability targets (as per). • Provide oversight and direction in the implementation of the following IS credits during the As-Built phase: Lea-2, Res-1, Res-2, Inn-1, Ecn-1, Ecn-4, Ene-1, Ene-2, Env-1, Env-2, Env-3, Env-4, Env-5, Rso-1, Rso-2, Rso-3, Rso-4, Rso-6, Wat-1, Wat-2, Eco-1, Eco-2, Her-1 and Wfs-5. • Responsibility for the implementation of the following IS credit requirements in the As-Built phase: Con-2 and Gre-1. • Work with the Alliance Sustainability Manager to prepare the Resource Efficiency Action Plan and Waste Management Plan. • Participate in Sustainability Workshops, monthly Sustainability Leadership Committee and quarterly Project Progress Meetings (as required).
Environmental Lead	<ul style="list-style-type: none"> • Ensure requirements in the Construction Environmental Management Plan are effectively established, implemented and maintained at a project level. • Ensure environmental controls are maintained onsite, monitor and record environmental data for water usage, waste and complete monthly environmental performance reporting, • Lead on areas of environmental compliance that intersect with sustainability, such as noise, air quality, water quality, vibration control, heritage and the legal compliance aspects associated with waste management and contaminated land. • Ensure the works are undertaken to meet the design and construction related requirements in the following IS credits: Env-1, Env-2, Env-3, Env-4, Env-5, Rso-2, Rso-3, Rso-4, Wat-1, Wat-2, Eco-1, Eco-2 and Her-1
Communications and Stakeholder & Community Lead	<ul style="list-style-type: none"> • Drive public and governance related initiatives to ensure community needs are identified and managed, and community development opportunities are realised. • Responsibility for delivery of sustainable outcomes in the Community Engagement Plan, Stakeholder Management Plan and Interface Management Plan. • Responsibility for delivery phase stakeholder participation tasks and deliverables to support certification under the ISC and Green Star for Design and As Built ratings. • Responsible for meeting assigned project sustainability targets (as per). • Ensure the Stakeholder Engagement strategy is implemented on the project in accordance with IS credits Sta-1 and Sta-2. • Assist with stakeholder engagement requirements for the following IS credits: Lea-1, Lea-3, Leg- 1 and Her-1.
People Lead	<ul style="list-style-type: none"> • Drive workforce, skills, culture, well-being and diversity initiatives to ensure workforce targets are met. • Responsibility for the implementation of the Gnarla Biddi METRONET's Aboriginal Engagement Strategy on the project, including working with Procurement Lead to help achieve the set targets. • Ensure the Workforce Engagement strategy is implemented on the project in accordance with IS credits Wfs-1, Wfs-2 and Wfs-3. • Responsibility for the implementation of the Training Management Plan, including achievement of set targets.

Critical leadership roles and responsibilities also lie externally to the Alliance, Table 6 outlines these personnel.

Table 6: Critical leadership roles and responsibilities by personnel external to the Project

ISC/GBCA Case Manager	<ul style="list-style-type: none"> • Provide technical support with the IS/Green Star ratings for the duration of the works. • Participate in regular meetings with the Project Sustainability Manager, PTA and METRONET Sustainability Leads to discuss performance, concerns and solutions. • Support the Project GSAP/ISAP with technical enquiries and process requirements to facilitate the sustainability ratings certification. • Facilitate a Kick-off Workshop with the Project team and stakeholders. • Review audit outcomes, take actions as necessary and provide timely feedback to the Project GSAPs/ISAPs.
ISC/GBCA Verifier(s)	<ul style="list-style-type: none"> • Audit project specific documentation in a consistent manner that aligns with the intent of the credit criteria. • Provide timely and constructive feedback to the project team to rectify any non-conformances for final certification. • (ISC) Review Base Case proposal and Materiality Assessment in a timely manner and provide constructive feedback to finalise the process.
METRONET Sustainability Lead	<ul style="list-style-type: none"> • Overall responsibility to monitor Contractor delivery against the METRONET Sustainability Strategy and project level Sustainability Action Plan. • Coordinate at a program level and collate quarterly and annual sustainability reporting for METRONET relevant to the project. • Participate in Sustainability Workshops, monthly Sustainability Leadership Committee, and quarterly Project Progress Meetings (as required). • Delivery of Strategy listed Strategic Initiatives.
PTA-OMTID Project Director	<ul style="list-style-type: none"> • Overall responsibility for compliance with METRONET Sustainability Strategy. • Review and approve MO and MLA Sustainability Action Plans. • Review performance against METRONET Sustainability Objectives. • Review and approve METRONET Annual Sustainability Reports. • Report on strategy implementation, including annual performance reviews, to Transport Infrastructure/Station Precinct Steering Committees and/or MERCSCCT.
PTA-OMTID Sustainability Lead	<ul style="list-style-type: none"> • Overall responsibility for procurement and delivery phase tasks and deliverables set under the METRONET Sustainability Strategy. Ensure adequate handover from planning phase. • Register project with GBCA & ISC and coordinate any third-party certification submissions and verifications. • Review the SuMP and all supporting documents against the METRONET Sustainability Strategy and contract. • Support achievement of the METRONET Sustainability Objectives/Targets. • Work with the MO Sustainability Strategy Coordinator to understand requirements and develop/integrate project Sustainability Action Plan with delivery. • Finalise the project Sustainability Action Plan / Sustainability Management Plan and procurement inputs. • Engage resources and consultants as required to support delivery against the METRONET Sustainability Strategy. • Manage review and auditing of performance of MetCONNx against the METRONET Sustainability Strategy. • Coordinate sustainability reporting from MetCONNx to the MO Sustainability Strategy Coordinator. • Participate in Sustainability Workshops, monthly Sustainability Leadership Committee and quarterly Project Progress Meetings. • Review the SuMP and all supporting documents against the METRONET Sustainability Strategy. • Liaise with the MetCONNx Project Sustainability Manager on sustainability issues, including the written notification of non-conformances (incidents, emergencies or deviations from the SuMP). • Provide clear and timely response to formal queries and requests for information.
METRONET Volume Certification GSAP	<ul style="list-style-type: none"> • Provide information regarding volume certification requirements to Alliance Sustainability Manager.

	<ul style="list-style-type: none"> Participate in Sustainability Workshops (as required).
PTA-OMTID Technical Specialists	<ul style="list-style-type: none"> Participate in Sustainability Workshops, monthly Sustainability Leadership Committee and quarterly Project Progress Meetings (as required).
Key Stakeholders	<ul style="list-style-type: none"> Participate in Sustainability Workshops, monthly Sustainability Leadership Committee and quarterly Project Progress Meetings (as required).

4.3 Sustainability Leadership Committee

The Alliance will coordinate monthly SLC meetings with the PTA in accordance with SWTC Book 2 review the Alliance's performance against activities set out in the SuMP. The progress meetings will consist of the following members shown in Table 7 below:

Table 7: Sustainability Leadership Committee

OP/NOP	Position	Attendance	Meeting
MetCONNx	Sustainability Manager	Monthly	Chair
PTA	Sustainability Manager	Monthly	Member
MetCONNx	Sustainability Advisor	Monthly	Minutes
PTA	Coordinating Project Engineer Stations	Monthly	Member
PTA	Coordinating Project Engineer Railway Systems	As required	Member
MetCONNx	Environmental Lead	Monthly	Member
PTA	Senior Project Delivery Manager	Monthly	Member
MetCONNx	Alliance Manager	Monthly	Member
MetCONNx	Design Lead	Monthly	Member
MetCONNx	Procurement Lead	Monthly	Member
MetCONNx	Construction Lead	Monthly	Member
MetCONNx	Engagement Lead	Monthly	Member
MetCONNx	Workforce Development and Training Lead	Monthly	Member
MetCONNx	Commercial Manager	Monthly	Member
MetCONNx	Engineering Manager	Monthly	Member
MetCONNx	Industry Participation Manager	Monthly	Member
METRONET	Sustainability Representatives	Monthly	Member

4.3.1 SLC charter

The scope of the SLC monthly meetings will be to govern the implementation of sustainable project management formally review, discuss and record monthly Project sustainability tracking progress. The following topics will be captured, tracked and reported as a minimum:

- Provide a forum for opportunity and risk decision-making
- Reviewing progress against sustainability objectives, targets and implementation of initiatives; and taking accountability for the effectiveness of the Project's approach to sustainability
- Ensuring that the METRONET Sustainability Strategy (Book 5) and objectives are established, and are compatible with the strategic direction and the context of the Project
- Ensuring the integration of the sustainability requirements into the Project's processes.
- Ensuring that the resources needed for sustainability are available
- Communicating the importance of effective sustainability management and of conforming to the requirements

- Ensuring that the Project achieves its intended outcomes
- Directing and supporting persons to contribute to the effectiveness of sustainability efforts
- Promoting continual improvement
- Supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

The Alliance will capture the SLC discussion and any agreed actions via the provision of meeting minutes to the PTA within one week following the meeting.

4.4 Alignment and collaboration

A Project Sustainability Alignment Workshop will be arranged to occur within 30 days of contract signing. Attendees are to include representatives from METRONET, ISC, GBCA and PTA will cover the following indicative agenda items as a minimum

- Key sustainability priorities for the Project, including review of, and ensuring alignment with, the METRONET Sustainability Objectives, Targets and Transport Infrastructure Target Outcomes outlined in the METRONET Sustainability Strategy; and project-specific Sustainability Targets
- Outline the opportunity ranking mechanism and decision-making framework to be applied to sustainability opportunities during project deliver
- Discussing METRONET program-wide and project-specific sustainability opportunities, agreeing appropriate opportunities and initiatives to further investigate and/or pursue
- Identifying key sustainability stakeholders for the project
- IS rating and Greenstar rating boundaries e.g. areas such as Station Precinct landscape and car parking, interfaces and any whole of project initiatives where boundaries may overlap
- Approach to IS ratings, including materiality assessment and weightings; specific IS credits and levels to target; interfaces with Green Star rating boundaries
- Aligning contract expectations for deliverables, review and reporting.

5. Planning

Planning is a core component of a sustainability management system; Planning ensures that the building blocks are in place such that the SuMP can achieve its intended outcome

This section draws on the Sustainability Context, Compliance obligations, Sustainability Objectives, and Risks and Opportunities to be determined and subsequently addressed to give assurance that the SuMP can achieve its intended outcomes and prevent, or reduce, undesired effects, and allow for continual improvement.

5.1 Compliance obligations

The sustainability compliance obligations are derived from the documentation listed in the Sustainability Action Plan. Refer to Appendix C of this Plan for a list of key action items required, and associated targets for actioning by the Alliance to fulfil the METRONET Sustainability Strategy obligations, as derived from Section 5.3 of BRE Sustainability Action Plan (BRE-MNO-MET-SU-PLN-0001).

5.2 Sustainability objectives

The MetCONNx Project Sustainability Charter commitments will reflect and link directly to the objectives and targets which are developed in this section

The sustainability objectives will be refined from a number of sources, such as the those listed in BRE Sustainability Action Plan (BRE-MNO-MET-SU-PLN-0001), and Table 8, and below which establish sustainability objectives and targets.

Table 8: Contract Sustainability Objectives

Objectives	Minimum
IS Design Rating	Silver
IS As-Built Rating	Silver
Green Star Design Rating	Byford Station - 4 star Armadale Station - 5 star
Green Star As-Built Rating	Byford Station - 4 star Armadale Station - 5 star
METRONET Sustainability Strategy Objective	<ul style="list-style-type: none"> • Support economic growth with better connected businesses and greater access to jobs • Plan for Perth's future growth by making the best use of our resources and funding • Deliver infrastructure that promotes easy and accessible travel and lifestyle options • Create communities that have a sense of belonging and support Perth's growth and prosperity • Lead a cultural shift in the way government, private sector and industry work together to achieve integrated land use and transport solutions for the future of Perth.

5.2.1 Objectives and Targets derived from the IS-Rating

The Alliance will review all sustainability requirements outlined in the proposed IS- rating approach to identify an IS Scorecard and pathway for the project to target, inclusive of additional applicable initiatives. Please see Appendix D for the MetCONNx indicative IS scorecard. The score card will be updated throughout the project and sustainability aspects of most significance will be identified pending finalisation of the Alignment and collaboration process (Section 4.4) and weightings assessment section 3.1.5.

Project targets will be derived for the whole project and will take account of both the IS rating and Greenstar rating boundaries, some targets will be project wide and will be based on the more stringent criteria from either Greenstar or the IS-rating. This allows for a consolidation of management processes and reduces confusion for teams that will work across both ratings boundaries, e.g., a consolidated landfill diversion targets makes sense.

Progress against targets is reviewed in an informal setting monthly in the Sustainability Leadership Committee (SLC) forum. Every six months a management review will be initiated to formally review progress and corrective actions set to rectify any non-conformances with targets. Performance against the targets will be reported publicly in the Annual Sustainability Report.

Targets are set out in, each target has a position responsible noted. Responsibility will be formalised in their job descriptions or Key Performance Indicators (KPIs) or embedded in supplier contracts.

Table 9: Project Targets

METRONET PILLAR	Objective	Target	Responsibility	UN SDGs & Material ISC Topics	Performance Measurement
People and Place	Reduce the Contribution of both Station Precincts to the 'urban heat island effect'.	Hard landscaping materials are selected to ensure average area solar reflectance is minimised as far as possible. Where possible, soft landscaping is preferred.	Station Design Manager (Design Rating) Station Construction Manager (As-built Rating)	Pla-2 SDG 9, 11 & 16	Green Star Urban Heat Island Effect credit Average area solar reflectance index of forecast hard landscaping materials. Materials list to be fed by REVISTO model.
	Ensure appropriate consultation and integration with a diverse representation of community and stakeholders.	Local Indigenous community member inputs have directly contributed to the inclusion of project Urban and Landscape design elements relating to at least three heritage features.		Pla-2 Her-1 SDG 11	Detail of feature linked to a heritage element in Final Design Report. Confirmation of satisfaction via survey.
		Implement at least three actions corresponding to stakeholder feedback on final station precinct design that support the diverse needs of the community in accessing public transport. These actions are to exceed legal compliance requirements.		Sta-1 SDG 11, 16 & 17	Detail of stakeholder input that has been included in design, linked to a design package. Confirmation of satisfaction via survey.
	Deliver initiatives that contribute long-lasting societal or environmental outcomes for the community, outside of the project's scope of delivery.	Two priority legacy initiatives, as identified with Stakeholders, and beyond the purpose of the project itself, will be delivered as a 'lasting legacy' that aims to positively contribute to society or the environment.	Stakeholder and Community Engagement Manager	Leg-1 (material as identified by Project Alliance objective & METRONET) SDG 11	Detail of action, linked to a priority issue/opportunity.
	Develop resilient infrastructure that can	Mitigate 100% of high or above climate change and natural hazard risks.	Sustainability Manager	Res-1 SDG 9, 11, 13, 17	% Identified risks mitigated to below 'high & above' risk ranking. Reported Monthly to SLC Via Dashboard which is attached to meeting minutes.

METRONET PILLAR	Objective	Target	Responsibility	UN SDGs & Material ISC Topics	Performance Measurement
	withstand climate and natural hazards.				
	Support the development of a diverse and inclusive working environment by surveying employees and implementing improvement actions.	Employees are surveyed annually, with at least 60% employee participation rate in Wellbeing and Diversity and Inclusion Surveys.	People Manager	Wfs-3 (material as identified by Project Alliance objective & METRONET) SDG 8	Average % participation of employees in wellbeing survey for the reporting year. Reported annually to SLC minutes recorded.
Environment	Minimise impact to environment	20% reduction of carbon emissions in construction and operational phases compared to a base case footprint.	Design Manager (operational)	Ene-1 Ene-2 (material as identified by METRONET objectives) SDG 9 & 13	% savings against a base case from avoidance of energy consumption, renewable energy provisions and efficient fixtures, fitting & equipment. Data provided from LCAs.
		15% reduction in water use in construction and operational phases compared to a base case footprint.	Construction Manager	Wat-1 SDG 6, 9 & 15	% savings against a base case from avoidance of water consumption and efficient fixtures, fittings and equipment. Data provided from LCAs.
		Monitoring demonstrates no recurring or major exceedances of project CEMP targets		Env 1-5 SDG 6, 11, 14, 15	#of Major Environmental exceedances (monthly & cumulative) # of re-occurring environmental exceedances (noting aspect).
	Native vegetation retention is prioritised. Where impacts are unavoidable aim to	Explore opportunities to mitigate biodiversity loss and aim to achieve a no net loss in biodiversity (inclusive of off-sets) measured in accordance with the ISC V2.1 framework *Subject to approval of Memorandum of Understanding and associated SWTC updated	Environment Manager	Eco-1 (material as identified by METRONET objectives)	Area cleared to date (Ha) vs. Offset budget.

METRONET PILLAR	Objective	Target	Responsibility	UN SDGs & Material ISC Topics	Performance Measurement
	minimise, rehabilitate or offset impacts to native vegetation.	requirements		SDG 14 & 15	
	Maximise Resource Efficiency	Achieve the following diversion rates from landfill: <ul style="list-style-type: none"> 85% clean/inert spoil (including 50% onsite re-use) 70% all other inert streams 60% office waste (stretch target) 	Sustainability Manager	Rso-4 SDG 9 & 12	Monthly & Cumulative diversion (%) measure by volume.
		15% reduction in materials lifecycle impacts, compared to a base case footprint.		Rso-6 SDG 9 & 12	% reduction against base (once available). & Ranking of material by impact. Data provided from LCAs.
Economy	Address sustainability risks and opportunities in the supply chain, building a robust procurement process which achieves sustainable outcomes through collaboration.	>90% of sub-contracts with identified 'material' sustainability opportunities and/or risk will implement a Project specific Sustainability Action Plan for their applicable package of works to demonstrate risk assessment and delivery methodology to ensure compliance with project, IS and Green Star targets.	Procurement Manager	Spr-3 (material as identified by Project Alliance objectives)	% active sub-contracts with an approved SAP of total active and material procurement packages. Reported Monthly to SLC Via Dashboard which is attached to meeting minutes.
		>3% spend on materials or products with sustainability labels used on permanent infrastructure		Rso-7 SDG 5, 8, 9, 10, 12, 15, 16, 17	% spend on labelled products of total spend on materials.

5.3 Risks and Opportunities

The Alliance adheres to the Laing O'Rourke ISO certified corporate governance process *Risk and Opportunity Management Procedure* – which is embedded in The BRE Project Risk Management Plan (R30-MET-PLN-RI-000-00001) Refer to the Risk Management Plan for further detail on the risk and opportunity process.

In summary, the *Risk and Opportunity Management Procedure* dictates a structured and practical approach to identifying, evaluating, and mitigating risks as well as identifying opportunities throughout project phases.

In addition to the standard risk and opportunity management procedure, the Alliance will adopt the risk and opportunity management requirements of the ISC technical manual for Sustainable risks and opportunities. The register will be maintained by the Project Sustainability Manager, who will engage with the project team to identify and record risks and opportunities from the key sustainability topic areas (including, but not limited to) from the list in Table 10 below.

Table 10: Indicative sustainability risks and opportunities categories

Sustainability Risk and Opportunity Categories		
Leadership	Stakeholder Engagement	Water
Risk management	Context	Environmental impacts
Knowledge sharing	Ecology	Workforce Capability
Innovation	Heritage	Workforce Wellbeing
Sustainable procurement	Green Infrastructure	Workforce Diversity and Inclusion
Productivity	Community Legacy	Sustainable Site Facilities
Benefits	Energy	
Resilience	Resource efficiency	

5.3.1 Climate change and natural hazards risk assessment

In accordance with the recommendations of Climate Change Network Vulnerability and Risk Assessment Report (PRO-MNO-MET-SU-RPT-0001), the Project team has undertaken a climate risk and vulnerability assessments for the BRE Project. This process follows the METRONET Program's Climate Change Network Vulnerability and Risk Assessment Framework (PRO-MNO-MET-SU-RAS-0001.0.IFI) to inform project "hot spots" and ensure no "high" or "very high" risks are identified. The assessment was undertaken during reference design phase.

5.3.2 Resilience risk assessment

The BRE Project has aligned a resilience strategy with ISC Res-2 target level 1 and undertaken a Resilience Risk Assessment workshop with key project stakeholders during reference design, that aimed to:

- Develop asset design safeguards and future proof suggestions for changing transport modes and technologies
- Establish a resilience risk assessment framework for station precincts
- Incorporate MLA participation and review in assessment.

The outcomes of the Project's Resilience Risk Assessment process has been formalised and delivered to PTA as a Resilience Action Plan within 90 days of contract award and aims to inform the Project Opportunities and Key Design Decisions process.

5.3.3 Opportunity assessment process

Outside the high level risk and opportunity process there is a broad range of sustainability opportunities, that may be better described as 'initiatives' where the commercial or broader value to

the project requires investigation. Some of these initiatives may be elevated to the project R&O register for formal and more involved assessment, some initiatives may be implemented through design development, or a construction process after a simple business case or decision making process has been carried out.

In the first instance, MetCONNx will review the Byford Rail Extension (BRE) - Sustainability Opportunities Register (BRE-MNO-MET-SU-REG-0001.0.IF1) provided in the AD Stage. The Design Team, supported by the sustainability team, will investigate all opportunities, seek to identify additional sustainability initiatives, and once identified, investigate viability for implementation.

This will be achieved by measures such as:

- Conducting Sustainability in Design workshops and team briefings to refine and identify other opportunities
- Attendance of sustainability team at design meetings to generate ideas and to facilitate discussion
- Documenting initiatives in design reports
- Reviewing design, procurement, and construction delivery programmes
- Developing and maintaining the Project's Sustainability Opportunities and Innovations register that will facilitate the Key Design Decisions Register (updated at each design gate).
- Including a monthly review of opportunities in the Sustainability Leadership Committee (SLC) meetings as per SWTC Book 3

The opportunities will be provided to PTA as part of the Quarterly Sustainability Report.

Opportunities are assessed using NOP member Laing O'Rourke (LOR) Opportunity Assessment matrix. Section 5.3.4 defines those opportunities deemed 'significant' or at least requiring a Multi-Criteria Analysis (MCA) for options assessments in line with IS Ecn-1 and Ecn-4 (See section 5.3.4 below and Appendix H).

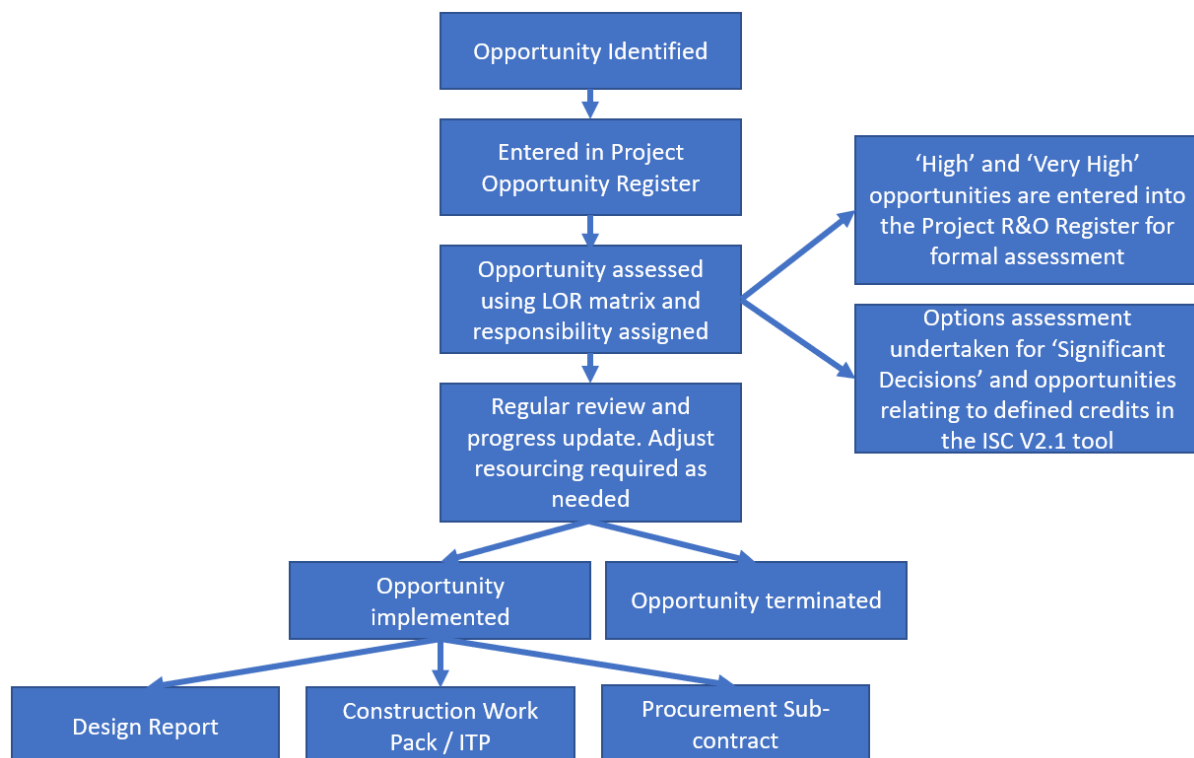


Figure 6 Opportunity Assessment & Implementation Procedure

5.3.4 Significant decision-making process

In alignment with ISC V2.1 credits Ecn-1 and Ecn-4 (Level 1) *, the MetCONNx team will undertake a multi-criteria analysis for a range of decision options considered to be 'significant' for project related items. This includes 'significant' opportunities which MetCONNx defines in the following. Refer to appendix H: Decision Making Framework for Significant Project Risks and Opportunities for more information.

There are certain commercial situations in which a direction and/or variation is issued by Public Transport Authority (PTA), our client, which are not within the ability of MetCONNx to influence. MetCONNx will therefore only assess 'Contractor (MetCONNx) initiated change', not PTA imposed scope changes. With this understanding, the Alliance Management Team (AMT) has agreed on the definition of what constitutes a 'significant decision', being where any of the below are true:

- >\$500,000 change to project cost
- >2 weeks impact to project critical path
- Project risks & opportunities adaptation treatment options for 'high' or 'very high' items (inclusive of environmental, societal and stakeholder items) identified (as per LOR Risk Assessment Standards)
- Achievement of a Project Key Result Area (KRA) (Schedule 6 of PPA) is impacted.

Key design decisions will be captured and formalised in a Key Design Decisions Register for the Project. This register will ensure significant decisions are assessed using a multi-criteria analysis, expanding further than financial aspects. As a minimum, the multi-criteria analysis will detail whole of life costing/lifecycle assessment considerations, environmental improvement initiatives, and social benefit improvements.

The Key Design Decisions Register for the Project will be provided for PTA review at RD, IDD and FDD delivery gateway.

Specific decision-making assessment processes will be delivered as required by the IS Rating for the following specific credits

- Res-1 - climate change adaptation treatment options for high or extreme risks identified
- Res-2 - high or very high risk or opportunities that are open to resilience
- Ene-1 - energy reduction adaptation treatment options for high or extreme opportunities identified
- Wat-1 - water reduction adaptation treatment options for high or extreme opportunities identified
- Wat-2 – feasible water sources with a payback of <2 years
- Rso-1/ Rso-2/ Rso-4 - Resource efficiency (contaminated land, alternative materials, re-use/re-cycling of materials) options for high or extreme opportunities identified and remediation adaptation treatment options for significant feasible opportunities identified
- Significant positive or negative impact on Environmental and Social Outcomes (including Indigenous People of the Land)
- Significant stakeholder risk or opportunity (as identified in Sta-1)

*Subject to approval of Memorandum of Understanding and associated SWTC updated requirements

6. Operational Controls

This section provides detail on how the Project has planned to take actions to address, its compliance obligations and objectives. Controls will be established for those project operations related to significant sustainability obligations, opportunities, environmental aspects, and compliance obligations.

The MetCONNx Project Sustainability Charter, Objectives, and compliance obligations will form the basis of the Project's sustainability requirements so that Technical Requirements are used as an

input into design, and the Process Requirements are delivered through The Alliance management systems, including this SuMP. These will ensure that the Alliance achieves the desired outcomes stated in Table 8 and or resulting from identified Risks and opportunities.

Indicative timelines for MetCONNx sustainability deliverables have been provided in the METRONET BRE Sustainability Action Plan (BRE-MNO-MET-SU-PLN-001). These deliverables are tracked to completion in the project deliverables register, see appendix C for excerpt. Dedicated sustainability personnel, their roles and responsibilities have been identified in Table 5.

Table 11: Operational Controls

Sustainability Aspect	Resources	Relevant Documentation	Inclusion of Sustainability Priorities
Design	Design Manager Sustainability Consultant (GSAP)	BRE-PTAWA-PM-RPT-00001. to 0008. Scope of Work and Technical Criteria Books 1A, 1B, 2, 3A, 3B, 3C, 4 and 5 Requirements Management Plan (R30-MET-PLN-EA-000-00003) Design Reports IS V2.1 Technical Manual* Green Star - Railway Stations v1.1 Credits	Technical and Process requirements will be monitored, implemented, and verified as closed using the Requirements Analysis/Allocation and Traceability Matrix (RATM). The RATM is a single integrated system used to log requirements from both contractual documents and the outputs of service or solution engineering activities. This process will ensure that prior to release, the design packages include all sustainability requirements relevant to that package of works. All sustainability requirements will be detailed in the respective design and delivery assurance frameworks. To effectively communicate the contents of the RATM to Project stakeholders, MetCONNX will establish export templates within the DOORS next environment.
Procurement	Commercial Manager Quantity Surveyors	Project Sustainability Charter – to be developed BRE-META-PR-PLN-00002 Procurement and Participation Plan Subcontractor Sustainability Action Plan Template ITT Sustainability Standard Inclusions Document AS ISO 20400:2018 Sustainable Procurement – Guidance IS V2.1 Technical Manual*	A Project specific Procurement Plan has been developed in alignment with ISC 2.1* requirements for sustainable procurement. Under this plan, Risks and opportunities to achieve sustainable outcomes in supply chain will be identified to allow focus on material aspects of a potential supplier's tender submission on each work package. This will flow through to provide a focused approach through procurement and deploy resource such as early engagement and market sounding, and onward supplier management on these packages and suppliers with the highest risks / opportunity. On-going contract management will occur through the use of a Sustainability Action Plan.
Construction	Construction Director Construction Manager Quality Manager	R30-MET-PLN-CM-00-00001 Construction Management Plan R30-MET-PLN-QA-000-00002 Quality Management Plan	The construction phase will predominantly require monitoring and collection of data to ensure the sustainability initiatives, systems and processes implemented during the design and procurement phases are executed successfully. To manage this, the Sustainability team will work closely with the Construction team to ensure that sustainability is included as an agenda item at construction team meetings. This will help to maintain the team's focus on sustainable outcomes and the need to collect objective evidence for rating submissions and closing out contract requirements. To maintain an effective system of compliance to sustainability objectives, the contract will use inspection and test plans (ITPs) to ensure that specified requirements for an activity are adhered to for all site and off-site construction/fabrication activities. ITPs will be reviewed by the BRE sustainability team to ensure inclusion of relevant sustainability considerations.

Sustainability Aspect	Resources	Relevant Documentation	Inclusion of Sustainability Priorities
Community Engagement and Stakeholder Interface	<p>Communication and Stakeholder & Community Lead</p> <p>Community Relations Advisors</p>	<p>R30-MET-PLN-SM-000-00001 Stakeholder interface Management Plan</p> <p>R30-MET-PLN-AE-000-00001 Aboriginal Engagement and Participation Plan</p> <p>IS V2.1 Technical Manual*</p> <p>METRONET Stakeholder Engagement Strategy</p> <p>METRONET Community and Stakeholder Engagement Management Plan</p> <p>MLA Community and Stakeholder Engagement Management Plan</p>	<p>MetCONNX has categorised The Alliance critical interfaces with stakeholders in line with Section 19 of SWTC Book 2 Management Plan Requirements (BRE-PTAWA-PM-RPT-00003). The Communication and Stakeholder & Community Lead will be responsible for the coordination of all construction interfaces. This includes key external interfaces such as contractors, utility authorities, government bodies and stakeholders within the community.</p>
Workforce Development	<p>People Lead</p>	<p>Diversity and Inclusion Plan (to be developed)</p> <p>IS V2.1 Technical Manual* 'Social Theme – Workforce Sustainability'.</p>	<p>MetCONNX will ensure sufficient workforce capacity and capability to minimise cost, improve productivity, quality and employee wellbeing. The project will identify skills needs and gaps, and measure progress against workforce objectives, which include training, development, diversity and inclusion targets. The Project is targeting IS Wfs-3 Level 1</p> <p>This information will be captured in a Diversity and Inclusion Plan, developed specifically to ensure sustainable workforce management.</p>
Environmental	<p>Environmental Lead</p> <p>HSE Manager</p> <p>Architect</p> <p>Design Manager</p> <p>GSAP</p>	<p>R30-MET-PLN-EN-000-00001 Construction Environmental Management Plan</p> <p>IS V2.1 Technical Manual*</p> <p>Green Star - Railway Stations v1.1 Credits</p>	<p>The project considers environmental impacts of pollution generated by various sources involved in construction and operation. Mitigation measures will be identified during the design and construction phases, as detailed in design reports (for operations) and the Construction Environmental Management plan. Both will be aligned with relevant specifications in the IS V2.1 technical manual and/or Green Star Railway stations V1.1. Considerations include:</p> <ul style="list-style-type: none"> • Noise & vibration • Light • Air quality • Water discharges
Climate change-adaption and resilience		<p>IS V2.1 Technical Manual*</p> <p>METRONET Resilience Assessment Framework</p>	<p>Adaption measures will be identified to respond to climate risks – implemented into design and demonstrated through inclusion in design reports. See section 5.1.1 of this Plan.</p>

Sustainability Aspect	Resources	Relevant Documentation	Inclusion of Sustainability Priorities
Resources efficiency / circular economy Waste reduction and management Spoil/ topsoil/ management	Construction Lead Quantity Surveyors	IS V2.1 Technical Manual* Design Reports MLA Resource efficiency strategy MLA Whole of Life Improvement Strategy Resource Efficiency and Waste Management Plan – to be developed	Implement circular economy principles on the Project to avoid excess waste, maximise the use of recycled materials, minimise the use of natural raw materials, and divert materials to landfill. The project is targeting the landfill diversion rate stated in Table 9. Introduce material tracking either through internal onsite databases and/or external platform software, such as "Voyager" which tracks waste through phone apps for delivery assurance. This software enables complete transparency of waste streams and produces a sophisticated reporting system (dashboard).
Landscape Design ecological integration/ enhancement	Construction Lead Design Lead Landscape Architect Qualified Ecologist	IS V2.1 Technical Manual* Scope of Works Water Management Plan for METRONET Transport Infrastructure and Stations METRONET Program - Water Sensitive Urban Design (WSUD) Review METRONET Program Landscape Design Guide Design Reports	This will form part of design development and closed through inclusion in design reports. MetCONNx will work to reduce the negative impacts on ecological values as a result of urban development, minimise harm and enhance the quality of local ecology. Landscape design targets will be formalised and provided in Reference Design. Specific consideration in the development of urban and landscape design for the project will prioritise: i) amenity; ii) tree canopy cover and reduction of heat island effect. iii) diverse multi-storey plantings to support biodiversity (including local threatened and priority species); iv) local ecosystem function and environmental values;
Water	Construction Lead Design Lead Landscape Architect	IS V2.1 Technical Manual* R30-MET-PLN-EN-000-00001 Construction Environmental Management Plan Water Management Plan for METRONET Transport Infrastructure and Stations - Scope of Works A Guide to Water Sensitive Urban Design for Public Transport Infrastructure in Western Australia Water Management plan - to be developed	Building design will minimise potable water consumption in operations. Construction water management will be detailed in the Construction Environmental management plan A water balance will be developed to address water usage risk and opportunities

Sustainability Aspect	Resources	Relevant Documentation	Inclusion of Sustainability Priorities
Life cycle environmental impacts.	Quantity Surveyor LCA Consultant Architect	IS V2.1 Technical Manual* Green Star - Railway Stations v1.1 Project Concept Design - Lifecycle Assessment METRONET LCA Specification METRONET Base Case Framework Project IS Rating Base Case Definition Whole-of-Life sub-plan R30-MET-PLN-QA-000-00001 Durability Management Plan R30-MET-PLN-IM-000-00002 Asset Management Plan R30-MET-PLN-EA-000-00002 Reliability, Availability and Maintainability Management Plan.	Lifecycle Assessment modelling outcomes will be incorporated in the WOL strategy, and it will be aligned to the greater PTA (METRONET) WOL Improvement Strategy and integrated into the design management process. Design integration will occur through review of Lifecycle Assessment outcomes in the Monthly Sustainability Leadership Committee forum (See table 14) and actions issued to assess options for impact reduction. Durability Management Plan describes how the selected design, materials, construction processes and future maintenance will achieve the durability and WOL performance in accordance with PTA requirements, when considering the expected exposure conditions. Providing assurance to PTA that the durability of their future assets and elements have been fully considered. Use Early Life Cycle analysis to ensure a balanced approach between life cycle durability, maintenance and replacement and the environmental performance of the materials. MetCONNx will work to: <ul style="list-style-type: none"> • Reduce and optimise materials utilising smart design approaches that minimise the need for new or more materials. • Engage with supply chain, encourage innovation, and educate the site teams as to the LCA implications of procurement. • Identify materials with the highest sustainable impact and suggesting similar products with reduced impact. • Hold and facilitate regular Project team workshops to educate people on a sustainable Supply Chain, its importance and the sustainable and social impacts that it can provide. • Plan for future i.e. future proofing, durability or planned future use of asset to avoid future embodied carbon impacts. • Conduct regular 'health checks', ensuring project is on track to achieving 15% reduction in material impacts against a base case.
Sustainable materials-specification	Architect GSAP	Green Star - Railway Stations v1.1	The project addresses the consumption of resources within the construction phase by including initiatives captured in the opportunities register that encourage the selection of materials with a lower environmental impact. These initiatives will be captured in the project Opportunity Register. The architect will ensure that the materials schedule will reflect the requirements of the green star rating.

*Subject to approval of Memorandum of Understanding and associated SWTC updated requirements

7. Competence, Awareness and Training

7.1 Upskilling Delivery Team and Supply Chain Partners

Sustainability is ‘everyone’s business’. The Alliance will ensure continual touch-points with the Project Team and invest time into informal training, awareness, relationships, and conversations to build a culture of sustainability on The Project. We will seek to make sustainability ‘everyone’s business’ through relationships, conversations, training, day-to-day reminders, and measurement and review. This is a key responsibility of the Sustainability Manager.

Table 12 is an overview of training program collateral to rolled out for The Alliance. Informal training will be provided to The Alliance staff on project specific sustainable practices and initiatives. This will include the Project’s sustainability aspirations for benchmarking, the value of this and how staff play their role in attaining certification and project objectives.

Table 12: Training Activities

Activity	Key Steps	Timing
Formal Training and Qualifications	<ul style="list-style-type: none"> Sustainability leadership training for leadership team 	<ul style="list-style-type: none"> Reference design
	<ul style="list-style-type: none"> IS-accredited qualifications for key people 	<ul style="list-style-type: none"> During on-boarding
	<ul style="list-style-type: none"> Sustainability in Design training for the design team 	<ul style="list-style-type: none"> Reference design
	<ul style="list-style-type: none"> Site induction for all 	<ul style="list-style-type: none"> Prior to first access to site
	<ul style="list-style-type: none"> Sustainability awareness training for site-based team/ supply chain partners. 	<ul style="list-style-type: none"> Throughout construction
Developing networks and having conversations	<ul style="list-style-type: none"> Build strong relationships and mutual respect across the team Hold multidisciplinary sustainability workshops for material topics and activities Provide sustainability briefings and hold relevant events Foster and support Sustainability Champions in each discipline 	<ul style="list-style-type: none"> As required/relevant
Day to day reminders	<ul style="list-style-type: none"> Posters, notices and signage in relevant locations in site offices Access to on-the-ground sustainability managers Celebration of achievements and internationally recognised dates of importance Running competitions and sustainability awards 	<ul style="list-style-type: none"> As required/relevant
Management and Review	<ul style="list-style-type: none"> Annual sustainability awareness surveys Sustainability awareness workshops held annually with leadership team Integrate sustainability responsibilities and targets into leadership positions descriptions and KPIs 	
Multi-Disciplinary Workshops	<ul style="list-style-type: none"> Materiality / Strategy development Value engineering Innovation Risk and opportunities Interface workshops with other packages and MelConnx Climate change risk Circular Economy Decarbonisation ISC kick-off. 	<ul style="list-style-type: none"> See appendix C, otherwise during reference design.

7.2 Knowledge sharing

Effective and ongoing sustainability knowledge sharing is critical to ensuring that sustainability knowledge from diverse sources, including within the Project team, and with the client, supply chain and parent organisations, organisations involved in the design, delivery and ultimate operation is captured, disseminated, built upon and applied. Knowledge sharing will continue with other key stakeholders and wider industry where appropriate. While the knowledge sharing process is ongoing, critical junctures are identified as follows:

- Stakeholder engagement
- Design management
- Procurement
- Construction planning.

Knowledge sharing forums to communicate best practice initiatives, lessons learned, process and progress are identified (but not limited to) in Table 13. This approach seeks to facilitate delivery on the MetCONNx sustainability objectives, targets and policy commitments.

Table 13: Sustainability Knowledge Sharing

Activity	Key Steps	Responsible Key Contributor	Deliverables
Communication internal to the project alliance	<ul style="list-style-type: none"> • Toolbox Talks • Posters • Sustainability Leadership Committee 	<ul style="list-style-type: none"> • Sustainability Manager • Sustainability Advisor 	<ul style="list-style-type: none"> • Presentations/shared content • Presentations (with list of attendees and/or name of conference/event)
Communication with other LOR projects	<ul style="list-style-type: none"> • Regular corporate sustainability meetings and forums • Yammer • LOR intranet 	<ul style="list-style-type: none"> • Sustainability Manager • Sustainability Advisor 	<ul style="list-style-type: none"> • Briefing notes • Meeting minutes (with list of attendees) • Newsletters • Online posts and articles.
Communication with PTA/METRONET sustainability peers	<ul style="list-style-type: none"> • Attendance at sustainability forums • Industry briefings • Regular informal meetings 	<ul style="list-style-type: none"> • Sustainability Manager • Sustainability Advisor • PTA PTA-OMTID Sustainability Lead 	<ul style="list-style-type: none"> • Published sustainability reports • ISC case studies
Communication to external stakeholders and the community regarding sustainability achievements	<ul style="list-style-type: none"> • LinkedIn • Industry events • ISC Case Studies 	<ul style="list-style-type: none"> • Sustainability Manager • Sustainability Leader 	

8. Communication

8.1 Internal Communication

Table 14: Internal Communication Activities

Activity	Key Steps	Responsible Key Contributor	Deliverables
Informal Meetings	Meet regularly with PTA PTA-OMTID Sustainability Lead.	<ul style="list-style-type: none"> • Sustainability Manager • Sustainability Advisor • PTA PTA-OMTID Sustainability Lead 	<ul style="list-style-type: none"> • Meeting minutes and actions
	Daily Stand-up meetings	<ul style="list-style-type: none"> • Sustainability Manager • Sustainability Advisor 	<ul style="list-style-type: none"> • Action list update in Planner.

Activity	Key Steps	Responsible Key Contributor	Deliverables
Formal Meetings	Sustainability Leadership Committee	<ul style="list-style-type: none"> Alliance Management team PTA PTA-OMTID Sustainability Lead 	<ul style="list-style-type: none"> Meeting minutes and actions
Design and Construction Interface	Sustainability workshops	<ul style="list-style-type: none"> Alliance Management team and nominated Sustainability Champions within disciplines Sustainability Manager Sustainability Advisor 	<ul style="list-style-type: none"> Sustainability Alignment Climate Change and Natural Hazard Risk Assessment Sustainability Opportunities Register Materiality Assessment
	Design meetings	<ul style="list-style-type: none"> Engineering & Design Lead Alliance GSAP 	<ul style="list-style-type: none"> Design meeting minutes Design Reports Design Reviews
Reporting	Client & Contract Reports	<ul style="list-style-type: none"> Sustainability Manager Sustainability Advisor 	<ul style="list-style-type: none"> Digital Contract Review Client Monthly Report
	Sustainability Reporting		<ul style="list-style-type: none"> Quarterly Sustainability Report Annual report
Auditing	External Audits	<ul style="list-style-type: none"> External auditor Sustainability Manager Sustainability Advisor Discipline Leads 	<ul style="list-style-type: none"> Audit reports Audit close-out report

8.2 External Communication

In order to establish and build positive relationships with key stakeholders and to foster open and honest communications, MetCONNx will facilitate a Sustainability Alignment Workshop with key stakeholders, as per SWTC Book 3, 26.2.

Additional kick-off workshops will include Project ISC, Green Star and Interface workshops with key Project Stakeholders to agree the Sustainability strategies, scope and interfaces with both rating tools.

Table 15: External Communication Activities

Activity	Key Steps	Responsible Key Contributor	Deliverables
ISC Project Communication	Monthly Case Manager meetings.	<ul style="list-style-type: none"> Sustainability Manager ISC Case Manager 	<ul style="list-style-type: none"> Minutes/Action report
	Technical Clarifications and Credit Interpretation Requests.		<ul style="list-style-type: none"> Relevant ISC forms.
GBCA Project Communication	Regular GBCA Case Managers meetings	<ul style="list-style-type: none"> Sustainability Manager GBCA Case Managers Alliance GSAP 	<ul style="list-style-type: none"> Minutes/Action report
	Formal queries relating to the certification.	<ul style="list-style-type: none"> Sustainability Manager GBCA Case Managers Alliance GSAP PTA-OMTID Sustainability Lead 	n/a

An overview of Stakeholders relevant to the project are included in figure 6 below. Further detail and overview of stakeholder issues can be found in the project Stakeholder Interface Management Plan (R30-MET-PLN-SM-000-00001). Refer to appendix G of the Stakeholder Interface Management plan.



Figure 6: Key Stakeholder Interfaces for BRE Project

8.3 Documentation

A central database for record keeping associated with the sustainability plans, sub-plans and strategies for ISCA and Green Star ratings as well as general project sustainability documentation will comply with SWTC Book 2. Metconnx has established a record management system, refer to R30-MET-PLN-IM-000-00001 Document Management Plan.

In accordance with internal LOR standards the Sustainability Manager, Alliance Manager and Quality Manager will progressively monitor, review and revise this SuMP to maintain its suitability and effectiveness. Any revisions to this plan will be provided to the PTA for review and approval.

Changes made will be summarised in the 'Document Revision History and Sign-off' on page 2 of this plan.

At each design gate, and during construction, MetCONNX will determine aspects and opportunities to influence and streamline lifecycle outcomes. Sustainability practices implemented throughout the lifecycle of the BRE Project are to be recorded to satisfy the:

- Contract requirements management
- Design and as built submissions to Infrastructure Sustainability Council
- Design and as built submissions to Green Building Council of Australia
- Knowledge management including positive and negative lessons learned and continual improvement opportunities.

All applicable objective evidence generated through the lifecycle will be uploaded and saved on the dedicated project server. Examples of evidence include:

- Policies
- Management Plans
- Design reports
- IDCs
- Audit reports
- Management reviews
- Design drawings
- Meeting minutes
- Monthly reports
- Monitoring records
- Base Case Proposal
- Materiality Assessment
- Maintenance of Project Scorecards and Trackers for IS and Green Star ratings
- Draft and completed Credit Summary Forms
- Attendance sheets as part pre-work briefing/toolbox delivery sessions
- Environment and sustainability inspections.

8.3.1 Recording minutes/agenda

All Coordination Meetings will be documented with a combined agenda/minutes format that provides a 'live' record of all matter's past, present, and future.

This methodology will keep all information readily at hand for all Project sustainability representatives and will make it easy for new representatives to come up to speed and to gain a clear picture of the path travelled to date, imminent matters, and the path ahead.

9. Performance Evaluation

As set out in this section, performance against Project sustainability objectives and targets will be evaluated on an ongoing basis both formally and informally. Management systems will support the collection of sustainability data, the presentation of performance against targets and objectives, inspections of work areas and the ongoing auditing of compliance against process, procedures, and

management plans. Evaluation of performance will be shared through monthly and annual performance reports to Alliance parent companies and the PTA. These reports will be reviewed against established management systems.

9.1 Monitoring, Measurement, and Analysis

The Project team shall collect, measure, analyse, and monitor its sustainability performance against the established performance targets (refer to).

Table 16 indicates the performance data to be collected and planned data sources which will be captured. The AMT will use visual reporting dashboards to review & evaluate the consolidated sustainability data on a monthly basis at the Sustainability Leadership Committee (SLC).

Table 16: Data sources for sustainability monitoring & measurement

Item	Details
IS/GS Ratings	<p>Monthly SLC Meetings will review progress against the SuMP and targets set as well as progress against METRONET's Sustainability Strategy and highlight any relevant risks, opportunities and defined sustainability initiatives.</p> <p>Quarterly auditing and reporting will be conducted by the Alliance Sustainability Manager, captured in a formal audit report and provided for review by PTA representatives.</p>
Waste	<p>Reports from waste contractors. Data reviewed against the Resource Efficiency Action Plan and ISC Rso-4 credit targets.</p> <p>To rationalise the reports The Project will seek to minimise the number of waste contractors working in the project and will require reporting to be consistent with GBCA guidance.</p>
Electricity consumption and generation, including any on-site renewable energy generation and any renewable energy sourced for the construction	Metering and bills
Fuel	Bills and subcontractor monthly sustainability reports
Quantity of greenhouse gas emissions associated with electricity consumption / fuel which have been offset, and method of offset;	<p>Metering and bills (GHG conversion achieved using latest NGERs approved Emission Factors)</p> <p>Offset certificates</p>
Volume of potable mains water consumed for the contractor's activities,	Volume of potable mains water consumed for the contractor's activities,
Volume of non-potable water consumed for the contractor's activities, including details of the sources of non-potable water,	Volume of non-potable water consumed for the contractor's activities, including details of the sources of non-potable water,
Materials Used	A material tracking process will be developed to manage construction materials relevant to the Greenstar and IS rating tools. – e.g. for Green star timber, paints, adhesives etc
Concrete	<p>'Green Star' report from concrete supplier.</p> <p>Volume weighted average percentage cementitious content, including supplementary materials fly ash and slag in concrete used</p>
Discharges (pollution to air land and water)	Monitoring, measurement and analysis of environmental aspects is detailed in The Alliance Construction Environmental Management Plans.
Contamination	Discharges are to be monitored against the following ISC credits:

Item	Details
Flooding	<ul style="list-style-type: none"> • Env-1 • Env-2 • Env-3
Ecological	
Heritage	
Spoil Management	
Topsoil	
Social and Environmental Legacy	Monitoring and analysis of community notification and engagement metrics is detailed in the Stakeholder Interface Management Plan (R30-MET-PLN-SM-000-00001) for further details.
Stakeholder Engagement	
Local Industry Participation	Monitoring and analysis of workforce and local industry participation metrics is detailed in the Procurement and Participation Management Plan (R30-MET-PLN-PR-000-00001) and the Aboriginal Engagement and Participation Plan (R30-MET-PLN-AE-000-00001) for further details.
Workforce Development and Diversity	
Sustainability Opportunities	As per section 5.3.3 of this plan.

9.2 Reporting

MetCONNX will communicate relevant sustainability performance information both internally and externally as required by compliance obligations. Table 17 provides an overview of sustainability reporting for the Project.

Table 17: Overview of sustainability reporting

Report	Inclusions
Annual Sustainability Report	The Alliance will report on sustainability performance in annual sustainability reports, to be delivered each year, using the METRONET Annual Reporting Template. The annual project sustainability reports will be publicly available by publishing these on METRONET's webpage.
Monthly Contract review	The project will carry out an internal Project Contract review using the MetCONNx project partner Laing O'Rourke Digital Contract Review. This is a mandatory governance process to maintain a monthly discipline around reporting against core project deliverables. For sustainability this will remain high level, and by exception with a focus on Greenstar the IS rating, risks and opportunities in delivery against the contract (books 1-5) and any key areas for improvement.
Quarterly Sustainability Reports	<p>The Alliance will report on sustainability performance in quarterly reports, to be delivered within 5 business days of months end, using the METRONET Quarterly Reporting Template. Reporting will be in accordance with SWTC Book 2.</p> <ul style="list-style-type: none"> • Significant design decisions, highlighting associated environmental, social and economic benefits or disadvantage. • Sustainability opportunities and the status of any progressed sustainability initiatives. • Construction resource consumption (aligned to estimates/predictions) and management: • Energy use and carbon emissions (including total metrics and disaggregated into key end uses aligned with the greenhouse gas protocol corporate accounting and reporting standard and carbon accounting principle of completeness and accuracy). • Water use and quality (including total metric and disaggregated by each source). • Materials quantities (disaggregated into key material types). • Generated waste quantities (disaggregated into key waste streams). • Waste recovery (landfill diversion total % and any % on-site reuse). • Current workforce status and performance against workforce skills and employment targets. • Details of any open audit actions and proposed close out approach.
Key Design Decisions Register	<ul style="list-style-type: none"> • Consolidated Project Sustainability Opportunities and Initiatives highlighted by the Project Design Team. • Capture key design decisions impacting the lifecycle assessment (LCA) methodology and considering energy, water and materials use and how these were integrated in the design process. • Capture 'significant' project decisions through the MCA process (as per IS Ecn-1, Ecn-4 process). Further information on this process is listed in section 5.3.4. • Updated at each design gate.
Alliance Lifecycle Assessment (LCA)	<ul style="list-style-type: none"> • Demonstration of key design decisions impacting on the LCA and the resource footprint (energy, water and materials use) of the Project, captured in a project design decision register. • Whole of life cost savings for operations and maintenance priorities. • Energy efficiency opportunities assessed by transport projects • Viable energy reduction initiatives (payback less than 5 years) implemented in both design response and construction practice/methodology.
Whole-of-Project Sustainability Performance (Design)	<ul style="list-style-type: none"> • Executive summary. • Cumulative summary of achievements from the Annual/Quarterly reports. • Detail performance against sustainability objectives. • Detail active transport mode access and facilities. • Detail present and future infrastructure needs considered in design, including for station/bus access and car parking areas to support changing transport mode options and technology (i.e. electric vehicles, autonomous vehicles, e-scooters and / or car-sharing modes) • Detail Environmentally sustainable design (ESD) design elements incorporated for all new METRONET stations and buildings

Report	Inclusions
	<ul style="list-style-type: none"> • Detail Wayfinding and Crime Prevention through Environmental Design (CPTED) implemented in design to promote a safe and accessible environment for users • Detail all Heritage and cultural context of the project site and related design considerations. • Design initiatives to promote the health and wellbeing of future occupants/users • Assessment of climate change vulnerability key risks that have informed the asset design development and required adaptation/responses • Considerations of LGA and DPLH guidance regarding urban forest strategies and detail implemented complementary initiatives to reduce tree loss, and possible contribution to a net-benefit (increase) in tree canopy cover in station and public realm areas • The water management system/s and design response/s for transport infrastructure (including station, bus interchanges, facilities and public realm) such as: <ul style="list-style-type: none"> • Appropriate protection from flooding and inundation • Consideration of safety, amenity and serviceability • Minimisation of any adverse impacts to the surrounding environment and water resources • Identify suitable initiatives to improve greenhouse gas emissions, including as part of business case valuation. • Good news stories/case studies; and • Photographs demonstrating key achievements.
<p>Whole-of-Project Sustainability Performance (Construction & Asset Completion)</p>	<ul style="list-style-type: none"> • Executive summary. • Cumulative summary of achievements from the Annual/Quarterly reports. • Detail performance against sustainability objectives. • Active transport mode (e.g., walking and cycling) access and facilities incorporated into station, bus interchange and public realm design. • Detail present and future infrastructure needs considered in design, including for station/bus access and car parking areas to support changing transport mode options and technology (i.e., electric vehicles, autonomous vehicles, e-scooters and / or car-sharing modes). • Station, bus interchange and public realm design alignment to the associated station precinct vision, formally reviewed and assessed in design development. • Demonstrate Environmentally Sustainable Design (ESD) performance for all new METRONET stations and buildings. • Wayfinding and Crime Prevention through Environmental Design (CPTED) Principles applied to station and facility design/s to promote a safe and accessible environment for users. • Station and/or facility design incorporating heritage and cultural context of the project site. • Detail initiatives to promote the health and wellbeing of future occupants/users. • Assessment of climate change vulnerability key risks that have informed the asset design development and required adaptation/responses. • Considerations of LGA and DPLH guidance regarding urban forest strategies and detail implemented complementary initiatives to reduce tree loss, and possible contribution to a net-benefit (increase) in tree canopy cover in station and public realm areas. • Detail Water Sensitive Urban Design (WSUD) performance for transport infrastructure (including station, bus interchanges, facilities and public realm) such as: <ul style="list-style-type: none"> • Appropriate protection from flooding and inundation • Consideration of safety, amenity and serviceability • Minimisation of any adverse impacts to the surrounding environment and water resources • List initiatives to improve greenhouse gas emissions. • Good news stories/case studies; and • Photographs demonstrating key achievements.

Report	Inclusions
IS Rating required reporting	<ul style="list-style-type: none"> • A sustainability reporting framework outlining how each sustainability target will be monitored and measured throughout the project will be developed as per requirements of Lea-1. • The Annual Sustainability Report as defined above will be made publicly available as per Lea-1. • Internal supplier compliance reports as per requirements in Spr-3. • Reporting on implementation of Green Infrastructure as per Gre-1. • Resource input/output reporting as per Rso-1. • Reporting on project outcomes related to Ecology as per Eco-2. • Workforce related reporting as per Wfs-1, Wfs-3 and Wfs-4. • Contamination and Acid Sulfate Soil remediation reporting as per Rso-2 and Rso-3. • Monthly reports to inform Ene-1, Ene-2, Rso-1, Rso-4, Rso-6, Wat-1, Wat-2, inclusive of: <ul style="list-style-type: none"> • Energy use and carbon emissions (including total metrics and disaggregated into key end uses aligned with the greenhouse gas protocol corporate accounting and reporting standard) • Water use and quality (including total metric and disaggregated by each source) • Materials quantities (disaggregated into key material types) • Generated waste quantities (disaggregated into key waste streams) • Waste recovery (landfill diversion total % and any % on-site reuse).

9.3 Audit, Review and Verification

The Project's sustainability performance shall be audited, reviewed and verified in accordance with ISC Lea-1 v2.1 requirements*, as outlined in tables 18-20.

***Subject to approval of Memorandum of Understanding and associated SWTC updated requirements**

Table 18: Proposed sustainability inspections, audits and verification activities

Resource	Details	Frequency
Site inspections	The Project shall undertake weekly sustainability inspections during construction. A template will be developed to capture the findings and actions arising from these 'sustainability walks'	Weekly
Independent Sustainability Professional Review	Quarterly review of Project's Sustainability Performance against the SuMP and METRONET's Sustainability Strategy will be reviewed by PTA Stakeholders. Audit and final project certification will be conducted by the Green Building Council of Australia (GBCA) and the Infrastructure Sustainability Council of Australia (ISC) at Final Design and Practical Completion.	Quarterly
Sustainability Audits	MetCONNX will conduct internal and external audits in accordance with the approved Quality Management Plan, Audit Procedure and AS/NZS ISO 19011: Guidelines for Auditing Management Systems. A detailed audit schedule, including internal process/procedural and AS/NZS ISO 9001 system audits has been developed by the Quality Team and includes annual internal audits of project Management Plans.	Quarterly/ Annually
Greenhouse Gas Emission Review	Preliminary Concept Design Lifecycle Assessment (LCA) modelling (undertaken by METRONET/PTA) will be reviewed by the relevant Alliance team members and further developed with the design. Updates to the LCA modelling will be summarised in a report and provided to PTA for review.	At significant Design Phases
Noise Goals Review	Once significant actions take place on site reporting and documentation (GIS/surveys) will be provided to PTA, EPA and State and Federal Government bodies in line with legislation requirements and in alignment with ISC and Green Star benchmarks (where relevant).	Annual
Vibration Goals Review	Please see Construction Environmental Management Plan (Ref R30-MET-PLN-EN-000-00001).	

Resource	Details	Frequency
Contaminated Site Assessment and Remediation Review	Once significant actions take place on site reporting and documentation (GIS/surveys) will be provided to PTA, EPA and State and Federal Government bodies in line with legislation requirements and in alignment with ISC and Green Star benchmarks (where relevant). Please see Construction Environmental Management Plan (Ref R30-MET-PLN-EN-000-00001).	Annual
Waste Monitoring and Management Audit	A Waste Contractor will be engaged to assist the Alliance with recycling waste streams on site and reducing quantities of waste sent to landfill, in line with METRONET's Sustainability Objectives and Targets, Green Star and ISC benchmarks.	Monthly
Waste Auditing to Final Destination	Waste dockets will be tracked, and diversion rates reported on a monthly basis. Please see Construction Environmental Management Plan (Ref R30-MET-PLN-EN-000-00001).	
Ecological Impact Assessment Review	Once significant actions take place on site reporting and documentation (GIS/surveys) will be provided to PTA, EPA and State and Federal Government bodies in line with legislation requirements and in alignment with ISC and Green Star benchmarks (where relevant). Please see Construction Environmental Management Plan (Ref R30-MET-PLN-EN-000-00001).	Annual
Heritage Review	Please see Construction Environmental Management Plan (Ref R30-MET-PLN-EN-000-00001).- Heritage Management.	Annual
IS Rating Weightings / Materiality Assessment Verification	Verification to check that the weightings assessment has been conducted appropriately and that the resulting weightings are fair and appropriate to be used within the IS rating tool scorecard for this rating. The ISC Case Manager will review and issue the weightings assessment to a Verifier for verification.	Once
IS Rating Base Case Verification	Verification to check that the Base Case assessment has been conducted appropriately and that the resulting early design (accepted by key stakeholders as being representative of the original concept for the Project) are fair and appropriate to be used within the IS rating tool scorecard for this rating. The ISC Case Manager will review and issue the Base Case to a Verifier for verification.	Once
IS Design Rating Verification	Audit and final project certification will be conducted by the Green Building Council of Australia (GBCA) and the Infrastructure Sustainability Council of Australia (ISC) at Final Design and Practical Completion. IS/GS compiled package submitted to Independent regulatory body (ISC/GBCA) for audit and award of certification. Round 1 audit will commence with non-conformances identified for rectification in the Round 2 audit.	Once
IS As-Built Verification	Audit and final project certification will be conducted by the Green Building Council of Australia (GBCA) and the Infrastructure Sustainability Council of Australia (ISC) at Final Design and Practical Completion. IS/GS compiled package submitted to Independent regulatory body (ISC/GBCA) for audit and award of certification. Round 1 audit will commence with non-conformances identified for rectification in the Round 2 audit.	Once

9.3.1 ISC reviews/audits

Table 19 Describes reviews to be undertaken as required by the IS Rating process.

Table 19: ISC reviews/audits

Resource	Details	Frequency
Urban and Landscape Design Pla-2	The ongoing maintenance arrangements for the project's urban and landscape design must be reviewed.	Once in Design and Once in As-Built

Resource	Details	Frequency
	The urban and landscape design plan must be independently reviewed at key stages throughout the design.	Each design gate.
Materiality Assessment Lea-1	External review of materiality assessment, including, as a minimum: <ul style="list-style-type: none"> • A representative from high influence and affected groups (particularly affected minority groups) as identified in Sta-1 • A representative from local Aboriginal community • The proponent, the appointed contractor and operator if known • A representative shareholder or investor if relevant. 	Once
Risk and Opportunity Assessment Lea-2	Review of the Risk and Opportunity Assessment.	Annually in Design and Quarterly in As-Built
Supply Chain Risk and Opportunity Assessment Spr-1	Review of the Supply Chain Risk and Opportunity Assessment with key internal stakeholders.	Annually
Contract and Supplier Management Spr-2	Periodic audits of sustainability performance against standards where relevant. Justification must be provided as to the time frames selected for monitoring and reporting. This is most effective if carried out on a regular basis and as part of the normal contract management process.	TBA
Resilience Strategy Res-1	Formal review of draft Resilience Strategy with feedback provided either verbally or electronically by affected stakeholders.	Once
Climate Change Review Res-2	Formal review of risk and adaptation assessments with feedback provided either verbally or electronically by affected stakeholders.	Once
Investment Options Assessment Ecn-1	Independent review of material externality assessment, to cover the assessment's assumptions, reasoning and outcomes.	Once in Design and Once in As-Built
Energy Model/Monitoring Ene-1	Review or audit of the finalised energy model, undertaken by a suitably qualified professional.	Once in Design
	Review or audit of the energy and carbon emissions monitoring, undertaken by a suitably qualified professional.	Once in As-Built
Renewable Energy Ene-1	Review or audit of the energy and carbon emissions monitoring, undertaken by a suitably qualified professional.	Once
Green Infrastructure Gre-1	The design and ongoing maintenance arrangements for the project's green infrastructure must be reviewed, and undertaken by the operator, or a professional with at least 10 years of landscape maintenance experience	Once in Design TBA in As-Built
	The green infrastructure plan must be independently reviewed.	Once in Design

Resource	Details	Frequency
Lighting Env-5	A lighting audit or assessment must be conducted to establish the condition of an existing lighting system of the site and to assess the interaction between the lighting and the sensitive receptors.	Once in Design
	Internal night-time audit.	At least once in As-Built
Resource Efficiency Rso-1	The Resource Efficiency Action Plan must be reviewed and updated at least annually by a suitably qualified professional.	Annually
	The regulatory approvals/ permitting register is reviewed and updated.	Once in As-Built
	REAP actions for operations are reviewed, updated and provided to the operator.	Once in As-Built
Contamination and Remediation Rso-2	The Site Contamination Management Plan must be reviewed and updated if appropriate, considering changes to the risk assessment, which may result from further site investigations or changes to design or construction methodology prior to construction commencement.	If required in Design and Annually in As-Built
	The project-specific contamination risk assessment must be reviewed.	Annually
	Monitoring and auditing of contamination and remediation must be undertaken to show that the project specific targets are achieved.	Monthly
	If any changes are made to the project-specific targets, then the new targets must be independently reviewed by a suitably qualified professional.	As required
Acid Sulfate Soils Rso-3	The Acid Sulfate Soil Management Plan must be reviewed and updated if appropriate, considering changes to the risk assessment, which may result from further site investigations or changes to design or construction methodology prior to construction commencement.	If required in Design and Annually in As-Built
	The project-specific acid sulfate soil risk assessment must be reviewed.	Annually
	Monitoring and auditing of acid sulfate soil must be undertaken to show that the project specific targets are achieved.	Monthly
	If any changes are made to the project-specific targets, then the new targets must be independently reviewed by a suitably qualified professional.	As required
Resource Recovery and Outputs (Waste) Rso-4	The desktop risk assessment must be reviewed and updated during construction where necessary, considering any new information or changes to design or construction methodology.	Annually in As-Built
	The Waste Management Plan must be reviewed and updated if appropriate, considering any new information or changes to design or construction Methodology.	As required
	Monitoring and auditing of resource outputs must be undertaken to show that the project specific targets are achieved.	Monthly
	If any changes are made to the project-specific targets, then the new targets must be independently reviewed by a suitably qualified professional.	As required
	Resource output data must be audited by an independent suitably qualified professional.	Annually
	Resource outputs must be tracked all the way to their final destination. An audit to final destination must be undertaken at least once every six	At least every 6 months in As-Built

Resource	Details	Frequency
	months for the full As Built phase. The audit must be undertaken by a suitably qualified professional. Each audit must cover at least 10% (by volume) of the project's resource output footprint. Over the life of the project a minimum of 80% of all resource output (waste) streams (AKA waste categories) must be audited at least once.	
Adaptability Rso-5	The adaptability strategy must be reviewed by a suitably qualified professional.	Once in Design As required in As-Built
Ecological Management Eco-1	Ecological Management Plans must be reviewed and updated during construction.	Once in As-Built
Ecological Monitoring Eco-1	The Ecological monitoring program must be reviewed and updated during construction.	Once in As-Built
	Monitoring activities must be periodically reviewed and updated, as necessary.	Periodic
Stakeholder Engagement Sta-1	The stakeholder engagement strategy developed or reviewed in Design must be reviewed and updated.	Annually in As-Built
Stakeholder Engagement Implementation Sta-2	Input received from stakeholders during engagement must be collected, summarised and considered in the project. A report outlining outcomes from stakeholder engagement must be developed and reviewed by the project's senior-management team.	Once in Design and Once in As-Built
	Negotiable issues must be reviewed and prioritised by stakeholders to identify priority negotiable issues	Annually
	Progress on implementing the strategy (and achieving the measurable objectives), must be monitored, reviewed and documented.	Annually
Heritage Her-1	Stakeholder review of heritage assessment.	Once
	Heritage monitoring system review or audit by suitably qualified professional.	Once in Design and Once in As-Built
	Heritage assessment review by suitably qualified professional.	Every 5 years
	A heritage audit or review must be completed to confirm mitigation and/or enhancement actions have been implemented successfully. A heritage audit or review must be undertaken by an independent suitably qualified professional.	Once in As-Built
Jobs, Skills and Workforce Planning Wfs-1	The skills analysis must be reviewed and updated.	Annually
	The Strategic Workforce Plan must be reviewed and updated to ensure alignment with the updated workforce analysis and to reflect changes in the community structure, legislative, socioeconomic and project design or objectives.	Annually
Workplace Culture and Well-being Wfs-2	Analysis and evaluation of employee survey relating to performance against culture and wellbeing targets and objectives, and satisfaction levels.	Annually
Diversity and Inclusion Wfs-3	The Diversity and Inclusion policy/program/strategy and associated objectives and SMART targets must be reviewed.	Annually
	Employment actions including employment targets (where relevant) for defined diversity groups must be set, monitored and reviewed.	Annually
	Mentoring support must be reviewed.	Annually

Resource	Details	Frequency
	Training program review.	Annually

9.3.2 Green Star reviews/audits

Table 20 describes reviews to be undertaken as required by the Green Star Rating process.

Table 20: Green Star reviews/audits

Resource	Details	Frequency
Commissioning and Tuning and Building Information	Review project commissioning in accordance with CIBSE and/or ASHRAE Commissioning Codes and Guidelines and requirement/implementation of transfer of knowledge through As-installed documentation to building management staff.	Once in Design and Ad hoc in As-Built
Adaptation and Resilience	Review project Climate Change and Natural Hazards Risk Register and Project implementation of mitigation design strategies.	Once in Design and once in As-Built
Responsible Construction Practices	Review CEMP and implementation records to align with requirements of Green Star Cr.7.0 and 7.1	Monthly
	Review High Quality Staff Support initiatives	Once during Procurement and quarterly during Construction
Culture, Heritage and Identity	Review Heritage and Identity interpretation research and Interpretation Plan for Stations precincts and the implementation responses to the Interpretation Plan	At each Design Phase and once in As Built
Urban Precincts	Review evidence of concept review regarding site planning, layout terms, urban design and public realm in terms of reference and in alignment with Green Star Cr.10	At each Design Phase
Safe Places	Review of Crime Risk Assessment undertaken by the Project in line with Green Star Cr.11 Review of summarised CPTED principles identified and how design will/has incorporated these into the station precincts (i.e. drawings and specification) in line with Green Star Cr.11	Once in Detailed Design and Once in As Built
Wayfinding	Audit Wayfinding Strategy for the Stations specific to the building and in compliance with Green Star Cr.12 Review plans and specifications showing the responses to the Wayfinding Strategy	Once in Detailed Design and Once in As Built
Quality of Indoor Air	Review design documentation in accordance with Green Star compliance requirements for Cr. 13.1 to ensure entry of outdoor pollutants is mitigated, the design allows for the ease of maintenance and cleaning and that ductwork (where applicable) is kept clean during construction and prior to use and occupation	Once in Detailed Design and periodically in As Built
Acoustic Comfort	Review supporting evidence to demonstrate compliance with Green Star Cr.14.1, 14.2, 14.3 and 14.4 Review detailed drawings articulating the design features relevant to the credit Audit commissioning reporting demonstrating achievement of targeted noise levels against measured noise levels	At Detailed Design and Practical Completion

Resource	Details	Frequency
Lighting Comfort	Audit Lighting Drawings, Architectural Drawings, Lighting Specifications/Schedules, Product Data Sheets, Isolux Plot Drawings against compliance requirements for Green Star Cr.15.0, 15.1 and 15.2	At Detailed Design and ad hoc during As Built
Visual Comfort	Review Daylight modelling report against daylight factor/illuminance requirements for claimed spaces. Review drawings and calculations showing location of glare reduction controls/access to views and compliant areas as per Green Star requirements for Cr.16.0 and 16.1	At Detailed Design and ad hoc during As Built
Indoor Pollutants	Review of internally applied paint, sealant & adhesive, carpet (where applicable), engineered wood products against Green Star requirements in Cr.17.1 and 17.2	At Final Design and monthly during Construction
Greenhouse Gas Emissions	Audit documentation demonstrating compliance with Green Star Cr.19A.0, 19A.1, 19A.2, 19A.3, and 19A.4 criteria. Review NCC Section J report/drawings showing the performance of building envelope, glazing and lighting and HVAC and that these exceed minimum NCC requirements by the specified amount. Review confirmation of building fabric, lighting and HVAC elements being installed in the Stations Review Commissioning Reports demonstrating lighting and HVAC systems are commissioned and operating as intended by the design.	At Detailed Design and ad hoc during As Built
Sustainable Transport	Review design and construction inclusion of low emissions vehicle infrastructure, active transport facilities and intermodal connectivity in accordance with Green Star Cr.21.1, 21.3, 21.5 criteria.	At Detailed Design and ad hoc during As Built
Sustainable Potable Water Usage	Review design and construction inclusion of efficient sanitary fixtures and fittings and landscape irrigation design in compliance with Green Star Cr. 22B.1 and 22B.4 criteria.	At Detailed Design and ad hoc during As Built
Materials/Products Lifecycle Impacts	Review Reference Design LCA against Concept Design LCA Audit selected materials and products (i.e. Steel, Concrete, Asphalt, Timber, PVC) supply chains and evidence of compliance with Green Star Cr.19, Cr.20 and Cr.21 criteria.	At each Design Phase and monthly during Construction
Construction and Demolition Waste	Audit Compliance Verification Summaries from Waste Contractor's waste processing facilities in accordance with Green Star Cr.26.0 requirements. Review Disclosure Statement from Waste Contractor's waste processing facilities (if applicable) in accordance with Green Star Cr.26.0 requirements. Audit cumulative waste reporting generated from Station Precincts during construction, including supporting waste disposal dockets.	At Procurement phase and monthly during Construction
Stormwater Pollution	Review stormwater peak discharge calculations/modelling in accordance with Green Star Cr.26 Review Civil/Hydraulic/Site Plan drawings showing stormwater treatment/storage facilities and detailing their functional elements	At Detailed Design and As Built

Resource	Details	Frequency
Light Pollution	Review external Lighting drawings, luminaire schedules, calculation plots and lighting control strategies for compliance with Green Star requirements for Cr.27.	At Detailed Design and As Built
Innovation	Review Opportunities and Innovations throughout the project lifecycle to be tracked through reporting register	Monthly

10. Continual improvement and management review

The review and improvement process for the sustainability management system will be based on those set out in the Quality Management Plan (R30-MET-PLN-QA-000-00002) and with reference to MetCONN partner Laing O'Rourke's *Company Management Review Procedure*; The Procedure will provide guidance but can be adapted to a project level

The Sustainability Management Plan will be reviewed during the course of the contract when the following situations arise:

- Annually
- Client recommendations for changes (particularly following initial review)
- Changes to the Company's standard system
- Following a management review where Opportunities for improvement or deficiencies in the project system are identified.

Project Management shall review the implementation of the SuMP at Project level, at planned intervals (at least annually), to ensure its continuing suitability, adequacy and effectiveness. The Project shall retain documented information as evidence of the results of management reviews.

This SuMP will be an evolving document that will be updated and reviewed regularly with the PTA, to capture any significant new developments and decisions that relate to sustainability. This regular review will ensure key Project deliverables and critical path items are met and/or negotiated to coordinate alignment of the Alliance and ensure that this Plan remains up to date through the life of the Project.

10.1 Non-Compliance and corrective actions

Non-conformances, corrective and preventative actions identified through audits or other means will be addressed and closed out by the Sustainability team following the processes established by the Quality Management Plan (Ref TBC).

When a nonconformity occurs, the Project shall react to the nonconformity and, as applicable:

- Take action to control and correct it
- Deal with the consequences, including mitigating adverse sustainability impacts
- Evaluate the need for action to eliminate the causes of the nonconformity, in order that it does not recur or occur elsewhere, by:
 - Reviewing the nonconformity
 - Determining the causes of the nonconformity
 - Determining if similar nonconformities exist, or could potentially occur
 - Implement any action needed
 - Review the effectiveness of any corrective action taken
 - Make changes to the SMP, if necessary.

Corrective actions shall be appropriate to the significance of the effects of the nonconformities encountered, including the sustainability outcomes(s).

The Project shall retain documented information as evidence of:

- The nature of the nonconformities and any subsequent actions taken
- The results of any corrective action.

Appendix A: Sustainability Charter



BUILDING
FOR
TOMORROW.

Byford Rail Extension Sustainability Charter

Project overview

The METRONET Byford Rail Extension Project will extend the Armadale Line 8km south to Byford, enabling travel to Perth within 42 minutes, supporting economic growth in the region and providing greater access to jobs, services and amenities. It will also facilitate the removal of six level crossings, elevation of rail in Armadale and creation of public spaces for Armadale and Byford communities.

Our commitment

METRONET aims to create a sustainable legacy for Perth through the planning, design, procurement, and construction of transport infrastructure, stations and precincts. As part of this commitment, the Byford Rail Extension Project will deliver rail infrastructure that meets the needs of the present community without compromising the ability of future generations to meet their needs.

The project will contribute to this commitment by:

- aligning with [the METRONET Sustainability Strategy](#)
- developing a robust and highly collaborative alliance culture in which everyone challenges 'business as usual' and pursues sustainable outcomes
- benchmarking and evaluating sustainability performance.

Two independent third-party rating schemes will be used for evaluation:

Green Building Council of Australia:

- a 5-star Green Star rating for the Armadale Station, certified at design and 'as-built' phases
- a 4-star Green Star rating for the Byford Station, certified at design and 'as-built' phases.

Infrastructure Sustainability Council of Australia:

- an IS Silver rating for the Byford Rail Extension Project, certified at design and 'as-built' phases.

Our sustainability vision

The Byford Rail Extension Project will create a safer, more efficient and environmentally responsible transport infrastructure that meets the needs of the community while also preserving and enhancing the natural environment. The project will improve connectivity, liveability and prosperity in Perth and its south-eastern suburbs.



May 2023

Sustainability targets

Sustainability targets guide the direction of sustainability across the whole-of-project life. The project team has developed ambitious targets that align with the United Nations Sustainable Development Goals.

These targets cover three key areas:

 **People and place**  **Environment**  **Economy**

People and place

Urban and landscape design

- Deliver a net improvement in the connectivity of pedestrian and cycling infrastructure at each station and surrounding area to improve active transport options, such as walking and cycling, for the benefit of the community.

Stakeholder engagement

- Ensure local Indigenous community members directly contribute to the enhancement of heritage values in project urban and landscape design elements, resulting in at least three distinct heritage features.
- Implement at least three actions corresponding to stakeholder feedback on final station designs that support the diverse needs of the community in accessing public transport. These actions are to exceed legal compliance requirements.

Legacy

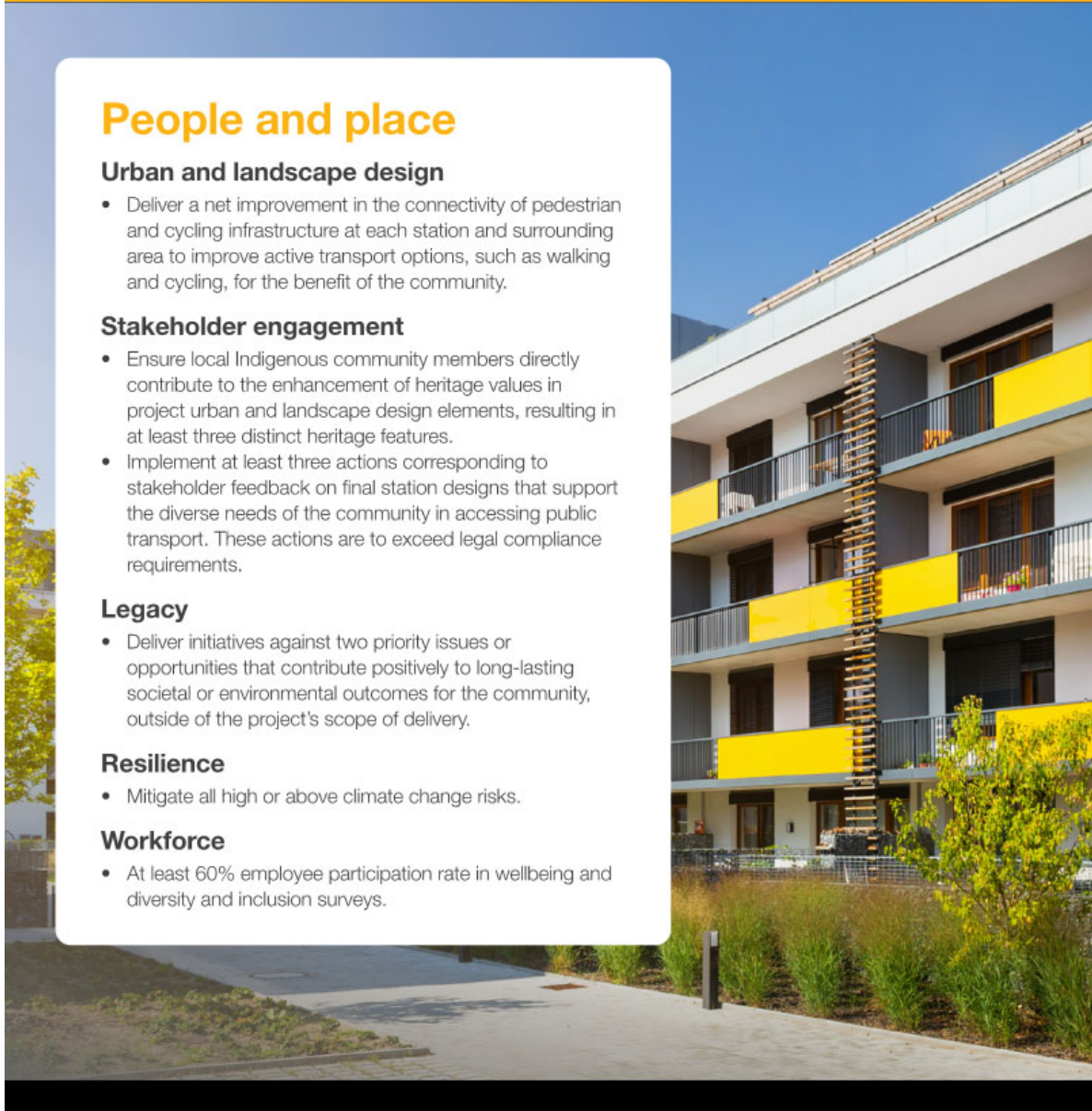
- Deliver initiatives against two priority issues or opportunities that contribute positively to long-lasting societal or environmental outcomes for the community, outside of the project's scope of delivery.

Resilience

- Mitigate all high or above climate change risks.

Workforce

- At least 60% employee participation rate in wellbeing and diversity and inclusion surveys.





Environment

Water

- Maintain the environmental quality of local water bodies by not exceeding the maximum threshold levels.
- 15% reduction in the amount of water used throughout construction and operational phases.

Ecology

- Explore opportunities to mitigate biodiversity loss and aim to achieve a no net loss in biodiversity (inclusive of off-sets).

Resource efficiency and management

- Achieve the following diversion rates from landfill:
 - 85% of clean/inert excavation spoil
 - 70% of other inert construction waste
 - 60% of site office waste.
- 15% reduction in material lifecycle impacts, which includes using less construction materials such as concrete and steel.

Energy and carbon

- 20% reduction in carbon emissions across both construction and operations.

Economy

Procurement

- >3% procurement spend on materials or products, with sustainability labels to be used on permanent infrastructure.

WANT MORE INFORMATION?

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METRONET

Appendix B: Extract of BRE Sustainability Opportunities and Innovations Register

Sustainability Opportunities and Innovations Register Byford Rail Extension										 MetCONX ate: /02/2023		Authors: E.Kindness	Reviewer: L.Penney
ID	Type	Status	Originator	Date Created	Opportunity / Initiative	BAU	Constraints / Risks / Costs	Rating	Opportunity Owner	Opportunity Implementation Action Plan (inc. strategic logistics)	Timing/Schedule for Action Plan		
1	Legacy	2. Plan	LOR	1/01/2021	ECC STEM Project	No engagement.		Very High	T.Anglin	To be implemented for next school year.			
2	Improvement	1. Idea	Melconx	16/07/2021	Decommissioning and Deconstruction Plan by Asset to assist achievement of IS Rso-5 credit Future-proofing for adaptability and deconstruction to facilitate reuse and recycling of elements when they reach end of life	N/A		High	G.Dickson	Sustainability team to sit down with Design Lead and Design Manager to confirm implementation and which assets will meet compliance. Adaptability workshop to be run by Sustainability team			
3	Initiative	2. Plan	Melconx	16/07/2021	Recycled plastic pipes for drainage, in approved applications by PTA spec. Recycled materials and reduced waste	Concrete pipes		High	M.Sloan/B.Keeler	Define opportunity owner and next steps. Approved (PTA) applications have been determined. Design team to identify rough quantities to provide to Civils for On-site. To use data for Env ISC credits.			
4	Innovation	4. Check	J.French	16/07/2021	Site Data Collection System - Environmental Monitoring and Safety initiative Solar powered Noise, Dust, Vibration, Air Quality Data Collection through bespoke MELconx module			Very High	J.French				
5	Initiative	1. Idea	Melconx	16/07/2021	Soil profile amendment product - Mineral Magic or others Decrease water demand for irrigation, decrease chemical fertiliser demand, increase plant productivity in landscaping, decrease leaching and associated environmental damage, high absorption of hydrocarbons. Improve soil microbial outcomes and softscape performance.	No product.	Consider additional cost?	High	M.Harris	Pass idea to landscape architects for integration in design plan/project specification.	Prior to FDD		
6	Improvement	7. Hold	Melconx	16/07/2021	Supply Chain R&O audit will assess extended supply chain		Identify Risk in extended supply chain	Very High	J.Forde	Undertake regular audits of supply chain incorporating extended supply chain audit requirements			
7	Innovation	5. Act	Melconx	16/07/2021	Utilise innovative (Australian first) bottom ballast box to control ballast installation. on average when we spread aggregate we normally do 250 meters per day. This will increase to 350m-400m (i think) per day, while requiring less man power and equipment. Major fuel saving Reduced material wastage Less water required for stockpile maintenance (i.e. no stockpiles, no dust supression) reduce double handling, etc, reduce labour and equipment.	Stockpile on site		Very High	S.Jones	To be implemented. Impact to be calculated, we have MEL statistics.	Timing		
8	Innovation	5. Act	METRONET	26/07/2021	Armadale station to be elevated Elevation removes issues/risk around high water table / excavation ASS, dewatering, futureproofing, water sourcing/avoiding impacts on high value ground water area and consequent construction controls (timing and fuel burn associated) and knock on additional		Significant cost.	Very High	J.Matterson	Quantify sustainable outcomes/benefits from incorporated design (groundwater table, A.S.S., aesthetics)			
9	Innovation	1. Idea	Melconx	26/07/2021	Augmented Reality in Artwork for specialist lighting in Welcome Places Heritage artwork can be kept up to date and changed with relative ease and can be utilised for specialist		On-going maintenance	High	Indigenous Engagement Advisor	Up to artists as to how this will be delivered. Would need to be a new art brief and budget...			
10	Initiative	6. Complete	Melconx	26/07/2021	Digital dockets for material delivery Saving paper, ease of data collection and analysis	paper dockets provided for the site engineers to log in excel.		Low	J.Forde	Project to use fieldview/springboard for information collection.	07-23 (Construction commencement)		

Appendix C: Sustainability Obligations Register

PROGRAM			Indicative Timeline
RD			May-23
IDD			Aug-23
IFC			Dec-23
CONSTRUCTION STARTS			May-23
PRACTICAL COMPLETION			Aug-25
LEADERSHIP	Doors		
Sustainability Alignment Workshop	877134	Alignment workshop held 04 August 2022	Closed
Sustainability Leadership Committee	875512	Ongoing	Monthly
MANAGEMENT PLANS			
SuMP	795765	Rev-C submitted to PTA for acceptance	May-23
Climate and Natural Hazards Risk Adaptation Plan	794280	Rev-B in preparation to respond to PTA comments.	May-23
Resilience Action Plan	794152	Rev-B in preparation to respond to PTA comments.	May-23
Water Management Plan Strategy Options Assessment	795109	Rev-A Submit	May-23
Resource Efficiency Action Plan	794391	Rev B submitted to PTA for acceptance	May-23
Whole of Life Improvement Sub-Plan/Strategy	795471	As per SWTC 20.4-1 (795471) will be delivered after the LCA results (est. end of June-23)	Jul-23
Workforce Diversity Plan		Not a contractual requirement. Will be delivered as a section of the ISC v 2.0 Wfs-4 credit documentation	n/a
Health, Safety and Wellbeing Plan	795320	Not on SWTC as a sustainability deliverable. Will be delivered as part of the Safety Management Plan	n/a
DESIGN DELIVERABLES			
Opportunities Register	877002	Provided with quarterly reporting	Quarterly
Key Design Decision Register	875710	Provided with quarterly reporting	Quarterly
Environmentally Sustainable Design (ESD) Report	795870	Rev-B in progress for issue at IDD update	Jun-23
Climate Change and Natural Hazards Workshop	875564	First workshop complete. External stakeholder workshop scheduled for June 2023	Jun-23
Resilience Assessment Workshop	875501	Internal Stakeholder Workshop complete. External Stakeholder workshop scheduled for May 2023	May-23
Lifecycle Assessment (LCA) Model Report	878535	To be submitted by Perspektiv in late June-23	Jul-23
LCA Workshop	878535	Resource Efficiency Workshop held on 6/12/22 which analysed the base case LCA. Further workshop to discuss outcome of LCA to be held in July 2023.	Jul-23

Operational Waste Management Plan		Not on SWTC as a sustainability deliverable. Will be delivered as a section of the GS credit 8	n/a
Station energy and water sub-metering	876914	To be submitted in line with Armadale and Byford Stations IDD	Sep-23
Whole of Project Sustainability Performance Report (Design)	878173	To be submitted in line with Armadale and Byford Stations FDD	2 weeks after FDD
Whole of Project Sustainability Performance Report (Construction and Asset Completion)	878173	To be submitted in line with Armadale and Byford Stations practical completion	as part of As-Constructed Reports
RATING SCHEMES			
Green Star Kick-off Workshop	876847	Closed. Sustainability alignment workshop on Aug 4	Closed
Green Star Assessment and Strategy	795870	Closed. Sustainability alignment workshop on Aug 4	Closed
Green Star submission Round 1 - Design	878846	30 days from completion of Detailed Design	Jan-24
Green Star submission Round 1 - As-Built	878846	30 days from completion of As-Con Reports	30 days after As-Constructed Reports
IS Kick-off Workshop	879554	Closed. Sustainability alignment workshop on Aug 4	closed
IS submission Round 1 - Design	877167	30 days from completion of Detailed Design	Feb-24
IS submission Round 1 - As-Built	877167	30 days from completion of As-Con Reports	30 days after As-Constructed Reports
REPORTING			
Sustainability Quarterly Report	876994	ongoing	every quarter
Sustainability SuMP Audits	877569	Audit Reports to be sent via Teambinder	Dec-23, Dec-24
Sustainability Opportunities Register	877002	Issued with METRONET quarterly report	Ongoing
Sustainability Annual Report	877601	First report to be issued in Jul-23	Jul-23, July-24, July-25

Appendix D: Design Rating Trackers

Infrastructure Sustainability council Certification

IS v2.1: Mandated minimum IS credit and level targets (as per SWTC Book 2 clause 20.9-2 DOORS reference 794807) and alternate v2.1 credit and level substitutions. *Subject to approval of Memorandum of Understanding and associated SWTC updated requirements

Legend:

High Risk credits/levels
Agreed new minimum level
Unchanged level
Credit no longer required



CREDIT		Original SWTC	Proposed Revision	Stretch Target	Final Justification for ALT (If changing)
Con-2	Urban and Landscape Design	Level 2	Pla-2 Level 2		New credit in v2.1 that combined Con-2 with Gre-1 into one credit i.e. Pla-2 in v2.1 tool
Lea-1	Integrating Sustainability	Level 2	Level 2		-
Lea-2	Risks and Opportunities	Level 2	Level 2		-
Lea-3	Knowledge Sharing	Level 2	Level 2		-
Spr-1	Sustainable Procurement Strategy	Level 1	Level 1		-
Res-1	Climate and Natural Hazard Risks	Level 2	Level 2		-
Res-2	Resilience Planning	Level 2	Level 1	Level 2	Level 2 requirements now within level 1. Revise down from Level 2 to Level 1 under v2.1
Ecn-1	Options Assessment and Significant Decisions	Level 2	Level 1	Level 2	v2.1 introduces a requirement at level 2 to account for the 'social cost of carbon', applying a monetary value to carbon in significant decision making for a minimum of 75% of significant decisions. Carbon impacts are currently considered in the multi criteria analysis (MCA) process as an environmental externality, not as a monetary consideration. There is no financial risk/reward mechanism in WA, or contractually that would benefit from this carbon valuation. MetCONNx note that the contractual target to achieve a 20% reduction in carbon emissions is sufficiently captured in the multi criteria analysis tool as an externality to weight decisions towards carbon savings, however this is only appropriate to achieve level 1.
Ene-1	Energy Efficiency and Carbon Reductions	Level 1	Level 1		Highlighting as a high-risk credit to achieve under v2.1. Agreed to maintain credit requirement due to contractual 20% carbon reduction requirement. Lifecycle Assessment modelling will provide further confidence in achieving this credit.

CREDIT		Original SWTC	Proposed Revision	Stretch Target	Final Justification for ALT (If changing)
Ene-2	Renewable Energy	Level 1	Level 1		Highlighting as a high-risk credit to achieve under v2.1. Highly dependent on maximising solar at stations (scaled credit). Viaduct at Armadale Stations restricts solar capacity. Lifecycle Assessment modelling will provide further confidence in achieving this credit.
Gre-1*	Green Infrastructure	Level 1	Remove		*Not applicable as Gre-1 is now combined into the new Pla-2 credit in the v2.1 tool. See Con-2 above.
Env-1	Receiving Water Quality	Level 2	Level 2		PTA confirm testing of surface and groundwater in accordance with ISC requirements.
Env-2	Noise	Level 1	Level 1		-
Env-3	Vibration	Level 1	Level 1		-
Env-5	Light Pollution	Level 1	Remove		No baseline study undertaken which presents significant cost and risk to MetCONNx in order to bridge gap prior to construction and achieve level 1. Unlikely to be achievable. Remove from target.
Rso-1	Resource Strategy Development	Level 2	Level 1		v2.0 Level 2 requirements now within level 1 in v2.1. Revise down from Level 2 to Level 1 under v2.1
Rso-2	Management of Contaminated Material	Level 2	Level 1	Level 2	v2.0 Level 3 requirements now within level 2 in v2.1. Revise down from Level 2 to Level 1 under v2.1
Rso-3	Management of Acid Sulfate Soils	Level 2	Level 2		-
Rso-4	Resource Recovery and Management	Level 2	Level 2		Highlighting as a high-risk credit to achieve under v2.1. SWTC Book 2 20.5-3-2 mandates 60% office waste diversion, which aligns with level 2 of this credit. However, no WA projects has been able to achieve 60% office waste diversion rates to date.
Rso-6	Material Life Cycle Impact Measurement and Management	Level 2	Level 1		v2.0 Level 2 requirements now within level 1 in v2.1. Revise down from Level 2 to Level 1 under v2.1
Wat-1	Avoiding Water Use	Level 1	Level 1		-
Wat-2	Appropriate use of water sources	Level 1	Level 1		Highlighting as a high-risk credit to achieve under v2.1. Achievement of v2.1 level requires implementation of ALL feasible initiatives (rainwater harvesting, greywater recycling, etc.) with a <2-year payback period.

CREDIT		Original SWTC	Proposed Revision	Stretch Target	Final Justification for ALT (If changing)
Eco-1	Ecological Assessment and Risk Management	Level 1	Level 1		Highlighting as a high-risk credit to achieve under v2.1. Now combined with Eco-2 in the v2.1 tool. This is a high materiality credit which has been publicly committed to in the form of 'no-net loss' target. However, current PTA planned offsets account only for priority species and TEC areas. There is far more native vegetation to be removed outside of these areas which will be accounted for under ISC. Budget required for increased landscaping areas, however is still undecided, which puts this credit at risk of achieving.
*Eco-2	Ecological Monitoring	Level 1	Remove		Not applicable as Eco-2 is now combined with Eco-1 in the v2.1 tool.
Sta-1	Stakeholder Engagement Strategy	Level 2	Level 2		-
Leg-1	Leaving a Lasting Legacy	Level 2	Level 2		-
Her-1	Heritage Assessment and Monitoring	Level 1	Level 1		-
Wfs-1	Jobs, Skills and Workforce Planning	Level 2	Remove		v2.1 combines Wfs-1 and Wfs-2. v2.0 level 3 requirements now within level 1 in v2.1. No IS Planning rating undertaken to incorporate skills gap analysis prior to project start up and meet the intent of the credit, as well as no SWTC provisions which enables MetCONNx to achieve the credit.
*Wfs-4	Diversity and Inclusion	Level 1	Wfs-3 Level 1		Now renamed as Wfs-3 in the v2.1 tool

ISC: *Materiality scorecard**

*Subject to approval of Memorandum of Understanding and associated SWTC updated requirements

 IS v2.1 Design & As Built Scorecard Country: Australia Rating stage: Design 						
Credit	Credit name	Materiality	Score possible	No. of levels	Target level	Target score
Pla-2	Urban and Landscape Design	4	5.32	3	2	3.55
Lea-1	Integrating Sustainability	2	3.04	3	3	3.04
Lea-2	Risks & Opportunities	2	1.90	3	2	1.27
Lea-3	Knowledge Sharing	2	1.90	3	2	1.27
Spr-1	Sustainable Procurement Strategy	2	2.28	3	2	1.52
Spr-2	Supplier Assessment and Selection	2	1.90	3	2	1.27
Spr-3	Contract and Supplier Management	2	1.90	3	2	1.27
Res-1	Climate and Natural Hazards Risks	4	3.80	3	2	2.54
Res-2	Resilience Planning	4	6.08	3	1	2.03
Inn-1	Innovation	2	10.00	10	3	3.00
Ecn-1	Options Assessment and Significant Decisions	2	3.80	3	1	1.27
Ene-1	Energy Efficiency and Carbon Reductions	2	2.85	3	2.00	1.90
Ene-2	Renewable Energy	2	1.90	3	0.60	0.38
Ene-3	Offsetting	2	0.95	3	1.50	0.48
Env-1	Receiving Water Quality	4	2.63	3	2	1.75
Env-2	Noise	4	2.62	3	1	0.87
Env-3	Vibration	4	2.62	3	1	0.87
Env-4	Air Quality	4	2.62	3	1	0.87
Env-5	Light Pollution	4	1.67	3	0	0.00
Rso-1	Resource Strategy Development	3	2.28	3	1	0.76
Rso-2	Management of Contaminated Material	1	0.38	2	1	0.19
Rso-3	Management of Acid Sulfate Soil	2	0.76	3	2	0.51
Rso-4	Resource Recovery and Management	3	2.28	3	1	0.76
Rso-5	Adaptability and End of Life	3	2.28	3	0.00	0.00
Rso-6	Material Life Cycle Impact Measurement & Managen	3	5.13	3	1.00	1.71
Rso-7	Sustainability Labelled Products and Supply Chains	3	1.71	3	0.33	0.19
Wat-1	Avoiding Water Use	3	3.42	3	1.50	1.71
Wat-2	Appropriate Use of Water Sources	3	3.42	3	0	0.00
Eco-1	Ecological Protection and Enhancement	2	5.32	3	1	1.77
Sta-1	Stakeholder Engagement Strategy	4	5.32	3	2	3.55
Sta-2	Stakeholder Engagement and Impacts	4	5.32	3	2	3.55
Leg-1	Leaving a Lasting Legacy	2	1.71	3	2	1.14
Her-1	Heritage Protection and Enhancement	4	3.80	3	2	2.54
Wfs-1	Jobs, Skills and Workforce Planning	2	2.28	2	0	0.00
Wfs-2	Workplace Culture and Wellbeing	2	1.71	3	3	1.71
Wfs-3	Diversity and Inclusion	2	1.71	3	2	1.14
Wfs-4	Sustainable Site Facilities	2	1.33	3	0	0.00
		Σ	110 pts		Σ	50.4 pts
						Silver

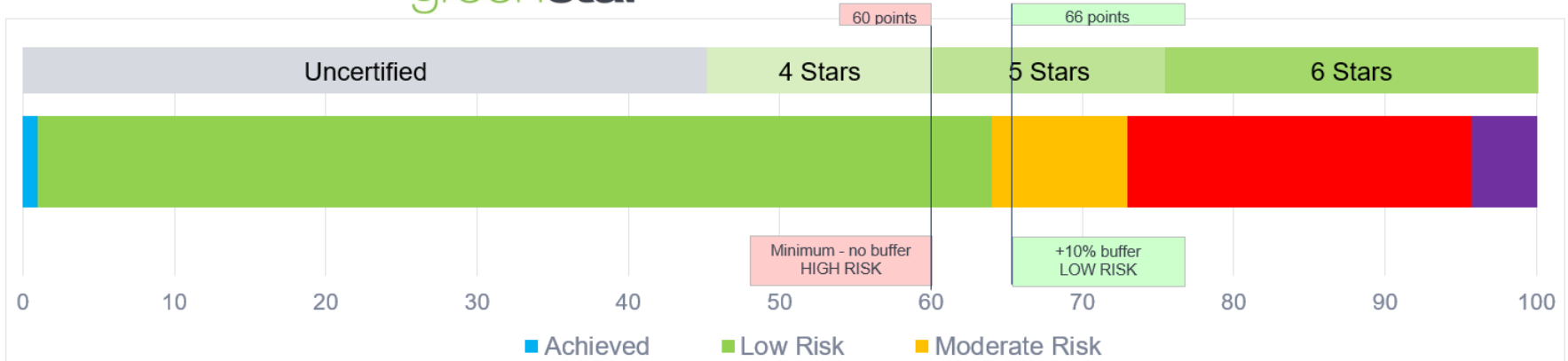
Green Star: Armadale Station

Green Star - Railway Stations v1.1 Scorecard

Project: Armadale Station
Targeted Rating: 5 star



Core Points Available	Achieved	Low Risk	Moderate Risk	High Risk	Potential Extra	Total Score Targeted
100	1	57	9	18.7	7.0	85.7



CATEGORY / CREDIT	CODE	CREDIT CRITERIA	POINTS AVAILABLE	Achieved	Low Risk	Moderate Risk	High Risk	Potential Extra
Management			20					
Green Star Accredited Professional	1.0	Accredited Professional	1	1				
	2.0	Environmental Performance Targets	-		Complies			
	2.1	Services and Maintainability Review	1		1			
	2.2	Project Commissioning	1		1			
Commissioning and Tuning	2.3	Project Systems Tuning	1					
	2.4	Independent Commissioning Agent	1			1		
Adaptation and Resilience	3.1	Implementation of a Climate Adaptation Plan	2		2			
Building Information	4.0	Building Information	1		1			
Commitment to Performance	5.1	Environmental Building Performance	1			1		
	5.2	End of Life Waste Performance	1		1			
	6.0	Metering	-			Complies		
Metering and Monitoring	6.1	Monitoring Systems	1					1
	7.0	Environmental Management Plan	-		Complies			
Responsible Construction Practices	7.1	Environmental Management System	1		1			
	7.2	High Quality Staff Support	1		1			
	8A	Performance Pathway - Specialist Plan	1					1
Operational Waste	8B	Prescriptive Pathway - Facilities	-					
Culture, Heritage and Identity	9.1	Understanding Culture, Heritage and Identity	1		1			
	9.2	Enhancing Culture, Heritage and Identity	1		1			
	10.0	Concept Review	-		Complies			
Urban Precincts	10.1	Site Planning and Layout	1		1			
	10.2	Urban Design and Public Realm	1		1			
Safe Places	11.0	Crime Risk Assessment	-		Complies			
	11.1	Safe Places Through Design	1		1			
Wayfinding	12.0	Wayfinding Review	-		Complies			
	12.1	Excellent Wayfinding Review	1		1			
Total			20	1	14	2	0	2

Indoor Environment Quality			17					
Quality of Indoor Air	13.1	Ventilation System Attributes	1		1			
	13.2	Provision of Outdoor Air	2		1			
	13.3	Exhaust or Elimination of Pollutants	1			1		
Acoustic Comfort	14.1	Internal Noise Levels	1		1			
	14.2	Reverberation	1		1			
	14.3	Audibility	1		1			
	14.4	Hearing Loop Coverage	1		1			
Lighting Comfort	15.0	Minimum Lighting Comfort	-		Complies			
	15.1	General Illuminance and Glare Reduction	1		1			
	15.2	Surface Illuminance	1					
Visual Comfort	16.0	Glare Reduction	-		Complies			
	16.1	Daylight	2		1			
	16.2	Views	1		1			
Indoor Pollutants	17.1	Paints, Adhesives, Sealants and Carpets	1		1			
	17.2	Engineered Wood Products	1		1			
Thermal Comfort	18.1	Staff Thermal Comfort	1					1
	18.2	Patron Thermal Comfort	1					1
Total			17	0	11	1	0	2

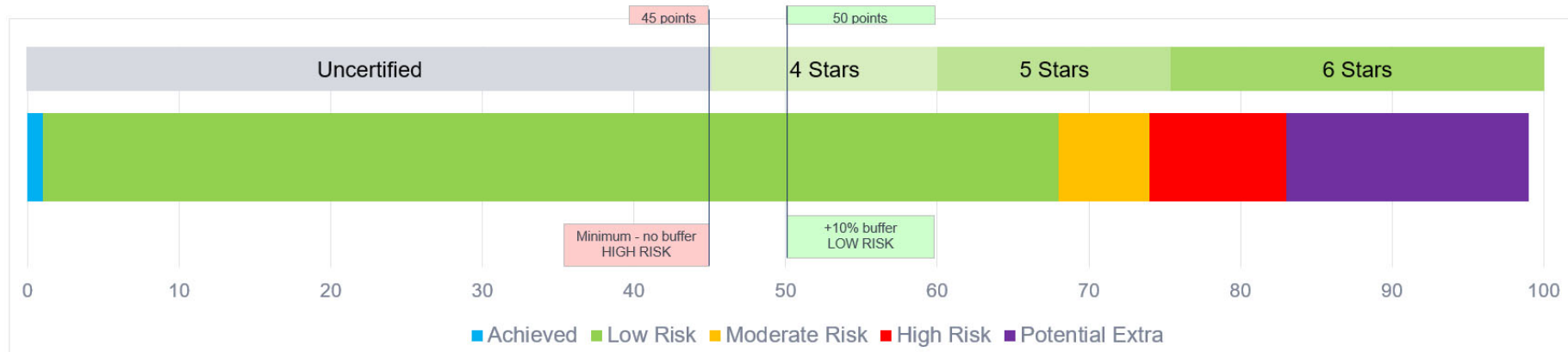
Energy		22					
Greenhouse Gas Emissions	19A.0	Conditional Requirement: Reference Building Pathway	-				
	19A.1	Building Envelope	-				
	19A.2	Wall-Glazing Construction and Retail Display Glazing	-				
	19A.3	Lighting	-				
	19A.4	Ventilation and air-conditioning	-				
	19A.5	Domestic hot water systems	-				
	19A.6	Transition Plan	-				
	19A.7	Fuel Switching	-				
	19A.8	On-Site Storage	-				
	19A.9	Vertical Transportation	-				
19A.10	Off-site Renewables	-					
	19B.0	Conditional Requirement: Reference Building Pathway	-		Complies		
	19B.1	GHG Emissions Reduction: Building Fabric	-		0.3		
	19B.2	GHG Emissions Reduction	20		2		5.7
	19B.3	Off-site Renewables	10.8				1
	19B.4	District Services	9				
	19B.5 Additional Prescriptive Measures	19E.5.1 Transition Plan	1				
		19E.5.2 Fuel Switching	2		2		
		19E.5.3 On-Site Storage	1				
Peak Electricity Demand Reduction	20A	Prescriptive Pathway - On-site Energy Generation	-				
	20B	Performance Pathway - Reference Building	2				2
Total			22	0	4.3	0	8.7
Transport			7				
Sustainable Transport	21.1	Intermodal Connectivity	3		3		
	21.2	Reduced Car Parking Provision	1		1		
	21.3	Low Emission Vehicle Infrastructure	1				1
	21.4	Active Transport Facilities	1		1		
	21.5	Walkable Neighbourhoods	1		1		
Total			7	0	6	0	1
Water			10				
Potable Water	22A	Potable Water - Performance Pathway	10		3.7		4
	22B.1	Sanitary Fixture Efficiency	-				
	22B.2	Rainwater Reuse	-				
	22B.3	Heat Rejection	-				
	22B.4	Landscape Irrigation	-				
	22B.5	Fire System Test Water	-				
Total			10	0	3.7	0	4

Materials		13						
Life Cycle Impacts	23A.1	Comparative Life Cycle Assessment	6		4	1	1	
	23A.2	Additional Life Cycle Impact Reporting	1		1			
	23B.1	Concrete	-					
	23B.2	Steel	-					
	23B.3	Building Reuse	-					
	23B.4	Asphalt	-					
	23B.5	Low-Maintenance Design	-					
Responsible Building Materials	24.1	Structural and Reinforcing Steel	1		1			
	24.2	Timber	1		1			
	24.3	Permanent Formwork, Pipes, Flooring, Blinds and Cables	1		1			
Sustainable Products	25	Product Transparency and Sustainability	2		1			
Construction and Demolition Waste	26.0	Reporting Accuracy	-		Complies			
	26A	Fixed Benchmark	-					
	26B	Percentage Benchmark	1			1		
Total			13	0	9	2	1	0
Land Use & Ecology		6						
Ecological Value	27.0	Endangered, Threatened or Vulnerable Species	-		Complies			
	27.1	Ecological Value	3		1	1	1	
Sustainable Sites	28.0	Conditional Requirement	-		Complies			
	28.1	Reuse of Land	1		1			
	28.2	Contamination and Hazardous Materials	1			1		
Heat Island Effect	29	Heat Island Effect Reduction	1					1
Total			6	0	2	2	1	1
Emissions		5						
Stormwater	30.1	Stormwater Peak Discharge	1			1		
	30.2	Stormwater Pollution Targets	1					1
Light Pollution	31.0	Light Pollution to Neighbouring Bodies	-		Complies			
	31.1	Light Pollution to Night Sky	1			1		
Microbial Control	32	Legionella Impacts from Cooling Systems	1		1			
Refrigerant Impacts	33	Refrigerants Impacts	1					
Total			5	0	1	2	0	1

Innovation			10					
Innovative Technology or Process	34A	Innovative Technology or Process	10				2	
Market Transformation	34B	Market Transformation						
Improving on Green Star Benchmarks	34C	Improving on Green Star Benchmarks		2				
Innovation Challenge	34D	Innovation Challenge		4				
Global Sustainability	34E	Global Sustainability					2	
Total			10	0	6	0	4	0

Green Star: Byford Station

Green Star - Railway Stations v1.1 Scorecard



CATEGORY / CREDIT	CODE	CREDIT CRITERIA	POINTS AVAILABLE	Achieved	Low Risk	Moderate Risk	High Risk	Potential Extra
Management			20					
Green Star Accredited Professional	1.0	Accredited Professional	1	1				
	2.0	Environmental Performance Targets	-		Complies			
	2.1	Services and Maintainability Review	1		1			
Commissioning and Tuning	2.2	Project Commissioning	1		1			
	2.3	Project Systems Tuning	1					
	2.4	Independent Commissioning Agent	1			1		
Adaptation and Resilience	3.1	Implementation of a Climate Adaptation Plan	2		2			
Building Information	4.0	Building Information	1		1			
Commitment to Performance	5.1	Environmental Building Performance	1					1
	5.2	End of Life Waste Performance	1				1	
Metering and Monitoring	6.0	Metering	-			Complies		
	6.1	Monitoring Systems	1					1
Responsible Construction Practices	7.0	Environmental Management Plan	-		Complies			
	7.1	Environmental Management System	1		1			
	7.2	High Quality Staff Support	1		1			
Operational Waste	8A	Performance Pathway - Specialist Plan	1					1
	8B	Prescriptive Pathway - Facilities	-					
Culture, Heritage and Identity	9.1	Understanding Culture, Heritage and Identity	1		1			
	9.2	Enhancing Culture, Heritage and Identity	1		1			
Urban Precincts	10.0	Concept Review	-		Complies			
	10.1	Site Planning and Layout	1		1			
	10.2	Urban Design and Public Realm	1		1			
Safe Places	11.0	Crime Risk Assessment	-			Complies		
	11.1	Safe Places Through Design	1			1		
Wayfinding	12.0	Wayfinding Review	-		Complies			
	12.1	Excellent Wayfinding Review	1		1			
Total			20	1	12	2	1	3

Indoor Environment Quality			17					
Quality of Indoor Air	13.1	Ventilation System Attributes	1		1			
	13.2	Provision of Outdoor Air	2		1			
	13.3	Exhaust or Elimination of Pollutants	1			1		
Acoustic Comfort	14.1	Internal Noise Levels	1		1			
	14.2	Reverberation	1		1			
	14.3	Audibility	1		1			
	14.4	Hearing Loop Coverage	1		1			
Lighting Comfort	15.0	Minimum Lighting Comfort	-		Complies			
	15.1	General Illuminance and Glare Reduction	1		1			
	15.2	Surface Illuminance	1					
Visual Comfort	16.0	Glare Reduction	-		Complies			
	16.1	Daylight	2		1			
	16.2	Views	1		1			
Indoor Pollutants	17.1	Paints, Adhesives, Sealants and Carpets	1		1			
	17.2	Engineered Wood Products	1		1			
Thermal Comfort	18.1	Staff Thermal Comfort	1					1
	18.2	Patron Thermal Comfort	1					1
Total			17	0	11	1	0	2
Energy			22					
Greenhouse Gas Emissions	19A.0	Conditional Requirement: Reference Building Pathway	-					
	19A.1	Building Envelope	-					
	19A.2	Wall-Glazing Construction and Retail Display Glazing	-					
	19A.3	Lighting	-					
	19A.4	Ventilation and air-conditioning	-					
	19A.5	Domestic hot water systems	-					
	19A.6	Transition Plan	-					
	19A.7	Fuel Switching	-					
	19A.8	On-Site Storage	-					
	19A.9	Vertical Transportation	-					
19A.10	Off-site Renewables	-						
	19B.0	Conditional Requirement: Reference Building Pathway	-		Complies			
	19B.1	GHG Emissions Reduction: Building Fabric	-		1			
	19B.2	GHG Emissions Reduction	20		7			
	19B.3	Off-site Renewables	10.8					
	19B.4	District Services	9					
	19B.5 Additional Prescriptive Measures	19E.5.1 Transition Plan	1					
		19E.5.2 Fuel Switching	2		2			
		19E.5.3 On-Site Storage	1					
Peak Electricity Demand Reduction	20A	Prescriptive Pathway - On-site Energy Generation	-					
	20B	Performance Pathway - Reference Building	2		2			
Total			22	0	12	0	0	0

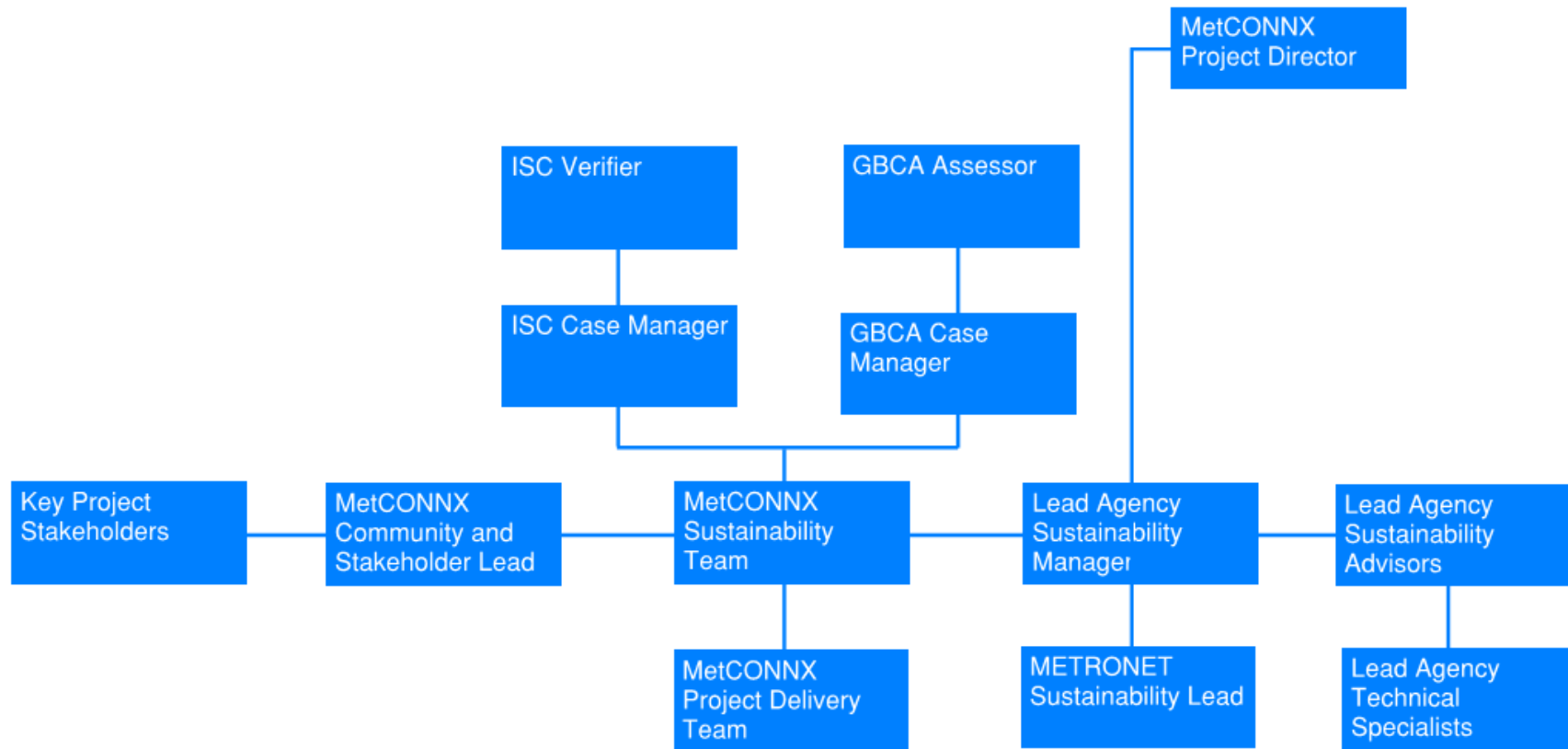
Transport			7					
Sustainable Transport	21.1	Intermodal Connectivity	3		3			
	21.2	Reduced Car Parking Provision	1		1			
	21.3	Low Emission Vehicle Infrastructure	1					1
	21.4	Active Transport Facilities	1		1			
	21.5	Walkable Neighbourhoods	1			1		
Total			7	0	5	1	0	1
Water			10					
Potable Water	22A	Potable Water - Performance Pathway	10		3		4	
	22B.1	Sanitary Fixture Efficiency	-					
	22B.2	Rainwater Reuse	-					
	22B.3	Heat Rejection	-					
	22B.4	Landscape Irrigation	-					
	22B.5	Fire System Test Water	-					
Total			10	0	3	0	4	0
Materials			13					
Life Cycle Impacts	23A.1	Comparative Life Cycle Assessment	6		5	1		
	23A.2	Additional Life Cycle Impact Reporting	1		1			
	23B.1	Concrete	-					
	23B.2	Steel	-					
	23B.3	Building Reuse	-					
	23B.4	Asphalt	-					
Responsible Building Materials	24.1	Structural and Reinforcing Steel	1		1			
	24.2	Timber	1		1			
	24.3	Permanent Formwork, Pipes, Flooring, Blinds and Cables	1		1			
Sustainable Products	25	Product Transparency and Sustainability	2		2			
Construction and Demolition Waste	26.0	Reporting Accuracy	-		Complies			
	26A	Fixed Benchmark	-					
	26B	Percentage Benchmark	1				1	
Total			13	0	11	1	1	0

Land Use & Ecology			6					
Ecological Value	27.0	Endangered, Threatened or Vulnerable Species	-		Complies			
	27.1	Ecological Value	3					1
Sustainable Sites	28.0	Conditional Requirement	-		Complies			
	28.1	Reuse of Land	1					
	28.2	Contamination and Hazardous Materials	1					1
Heat Island Effect	29	Heat Island Effect Reduction	1				1	
Total			6	0	0	0	1	2

Emissions			5					
Stormwater	30.1	Stormwater Peak Discharge	1			1		
	30.2	Stormwater Pollution Targets	1				1	
Light Pollution	31.0	Light Pollution to Neighbouring Bodies	-		Complies			
	31.1	Light Pollution to Night Sky	1				1	
Microbial Control	32	Legionella Impacts from Cooling Systems	1		1			
Refrigerant Impacts	33	Refrigerants Impacts	1					
Total			5	0	1	1	2	0

Innovation			10					
Innovative Technology or Process	34A	Innovative Technology or Process	10		3			
Market Transformation	34B	Market Transformation						
Improving on Green Star Benchmarks	34C	Improving on Green Star Benchmarks						
Innovation Challenge	34D	Innovation Challenge			3			
Global Sustainability	34E	Global Sustainability						4
Total			10	0	6	0	0	4

Appendix E: Project Sustainability Organisational Chart



Appendix F: Compliance Matrix

The minimum requirements for this plan are defined in the Project's Scope of Work and Technical Criteria (SWTC), Book 2: Management Plan Requirements (document number BRE-PTAWA-PM-RPT-00003).

Clause No	SWTC – Book 2: Management Plans Requirements	Doors NG Reference	Where SWTC is addressed in this Plan
20	Sustainability Management Plan		
20.1	General		
20.1-0-3.0-13	Green Star Accredited Professional	892768	Table 5
20.1.0-3.0-14	Infrastructure Sustainability Accredited Professional	892769	Table 5
20.1-1	The NOP must prepare a Sustainability Management Plan (SuMP) using the METRONET Template - Sustainability Management Plan (refer to Book 5).	795765	This plan
20.1-2	The NOP shall prepare, implement and maintain a SuMP that identifies how it will:	794626	This plan
20.1-2-1	Manage sustainability for all phases of the Project including design, approvals, construction, Commissioning and Handover.	794544	All sections of this plan.
20.1-2-2	Implement the Works in a way which considers the social, environmental and economic aspects across the whole of the Asset's life.	794157	This plan
20.1-2-3	Consult with all relevant Stakeholders, and incorporate relevant feedback into the plan.	795306	Section 8.1 and section 10
20.1-2-4	Manage sustainability objectives and initiatives.	795440	Sections 5 & 6
20.1-3	The SuMP shall detail, as a minimum the sustainability deliverable responsibilities of the listed key personnel, (or project equivalent roles):	794615	Section 4.2 and table 5
20.1-3-1	Project Manager;	795918	Table 5
20.1-3-2	Sustainability Manager;	794224	Table 5
20.1-3-3	Procurement Manager;	794669	Table 5
20.1-3-4	Commercial Manager;	795614	Table 5

Clause No	SWTC – Book 2: Management Plans Requirements	Doors NG Reference	Where SWTC is addressed in this Plan
20.1-3-5	Design Manager;	795524	Table 5
20.1-3-6	Engineering Manager;	794211	Table 5
20.1-3-7	Construction Manager;	794742	Table 5
20.1-3-8	Environmental Manager;	795932	Table 5
20.1-3-9	Community Engagement Manager;	794345	Table 5
20.1-3-10	Stakeholder Interface Manager;	794546	Table 5
20.1-3-11	Workforce Development and Training Manager; and	794748	Table 5
20.1-3-12	Industry Participation Manager.	795279	Table 5
20.1-4	The SuMP shall identify and detail specific actions the NOP will undertake to:	795186	
20.1-4-1	Fulfil the objectives of the SuMP;	794443	Table 11
20.1-4-2	Maintain and verify compliance to obligations, strategies, frameworks and guidelines relevant to sustainable design and delivery;	794728	Table 18 Table 19 Table 20
20.1-4-3	Implement and maintain the use of a central database (system of tracking) for allocation of all Project sustainability obligation responsibility, obligation timing and obligation status (e.g. In progress, Compliant, Non-compliant);	795913	Section 8.3 Documentation
20.1-4-4	Monitor, measure, reporting, meetings and audit required in SWTC Book 3 - Part A: Sustainability; and	795864	Table 17 Table 18 Table 19 Table 20
20.1-4-5	Review and update the SuMP (and any sub-plans) at key Project Milestones, or annually, whichever occurs first (i.e. design delivery milestones and construction commencement).	794768	Section 10
20.1-5	The SuMP shall outline the systems that will be used to support sustainability management and their alignment with ISO 14001.	795669	Plan headings align with ISO 14001 Section 1.6 Section 2.4

Clause No	SWTC – Book 2: Management Plans Requirements	Doors NG Reference	Where SWTC is addressed in this Plan
20.1-6	The Contractor shall provide an outline SuMP during the AD stage and a final within 30 days of Contract Award.	794394	This Initial plan submitted prior to contract award.
20.2	METRONET Sustainability Commitment		
20.2-1	The NOP shall outline in the SuMP how it will:	795703	Context
20.2-1-1	Achieve the relevant METRONET Sustainability Strategy (PRO-MNO-MET-SU- PLN-0002) objectives, targets and transport infrastructure target outcomes. opportunities, the mechanism shall:	794918	Table 8 3.1.3 METRONET Sustainability Context
20.3	Opportunities Assessment	5.3 Error! Not a valid result for table.	
		Appendix H	
20.3-1	The NOP shall outline in the SuMP a ranking mechanism for the identification, assessment and realisation of environmental, social and economic opportunities, the mechanism shall:		Section 5.3
20.3-1-1	Provide the initial assessment of opportunities at commencement of the Project.	795534	Section 5.3
20.3-1-2	Detail the opportunity ranking mechanism, including the impact and effort criteria.	795978	Section 5.3
20.3-1-3	Detail the decision making framework to be applied to sustainability opportunities to determine if sustainability initiatives will be implemented during project delivery	795989	Section 5.3
20.3-1-4	Detail how key decisions affecting sustainable design outcomes are managed and captured in a Key Design Decision Register.	795507	Section 5.5
20.3-1-5	The ranking mechanism shall be approved by the PTA.	794256	Section 5.5
20.3-2	The NOP shall document the opportunities assessment ranking mechanism to be implemented in the Risk Management Plan.	794561	Section 5.3

Clause No	SWTC – Book 2: Management Plans Requirements	Doors NG Reference	Where SWTC is addressed in this Plan
20.4	Whole of Life Improvement Sub-Plan		Plan to be developed
20.4-1	The NOP shall prepare a Whole of Life Improvement Sub-plan of the SuMP, that identifies how it will:	795471	
20.4-1-1	Achieve whole of life cost savings.	795610	
20.4-1-2	Reduce environmental footprint from resource inputs and outputs (material, energy, waste and water) used.	794267	
20.4-1-3	Increase overall resource efficiency improvement through Asset design.	795060	
20.4-2	The Whole of Life Improvement Sub-plan shall include:	794583	
20.4-2-1	High impact resources to be procured to deliver the Asset design, determined on resource Global Warming Potential (tonnes CO ₂ e GWP) as determined by the Contractor Life Cycle Assessment (LCA).	794251	
20.4-2-2	The NOP shall document the sustainable procurement management measures to be implemented in the Procurement and Participation Plan.	795289	
20.4-2-3	Design response opportunities to reduce high impact resource inputs and outputs.	794907	
20.4-2-4	Key components of the Asset system resulting in operational costs and resource use (i.e., energy usage, water use, waste generation and maintenance needs).	795654	
20.4-2-5	Design response opportunities to improve operational efficiency (in particular for energy, water, waste generation and materials).	795525	
20.4-2-6	Initiatives to reduce greenhouse gas emissions throughout the life of the asset.	795805	
20.4-2-7	Clear definition of capital and operational costs and benefits (including economic, social, environmental) associated with the identified design response opportunities.	794183	
20.4-2-8	A process for ongoing tracking and mechanism for decision making during design and construction for initiatives with resultant whole of life benefits.	794586	

Clause No	SWTC – Book 2: Management Plans Requirements	Doors NG Reference	Where SWTC is addressed in this Plan
20.5	Resource Efficiency Action Plan		Plan to be developed
20.5-1	The NOP, as a sub-plan of the SuMP, shall prepare within 90 days of contract award, a Resource Efficiency Action Plan (REAP) in accordance with and meeting the minimum Rso-4 Resource Recovery, Level 1 requirements detailed in the IS V2.0 Technical Manual*.	794391	
20.5-2	The REAP shall include:	794603	
20.5-2-1	An estimate of existing onsite resources and resource consumption inputs and outputs during the construction phase, including energy use (fuel and electricity), water and materials.	794539	
20.5-2-2	Predicted waste generation, including quantified by waste stream and materials.	795284	
20.5-2-3	High impact procurement and suppliers associated with resource inputs and outputs based on quantities and Global Warming Potential (GWP) in tonnes CO ₂ e.	795351	
20.5-2-4	Management actions and targets specifically related to demolition waste, renewable energy use, crushed recycled concrete, and use of recovered, recycled and sustainable materials.	794244	
20.5-3	The REAP shall identify how the NOP will achieve the following construction landfill diversion targets, measured in tonnes:	794987	
20.5-3-1	85% landfill diversion for clean/inert spoil.	794582	
20.5-3-2	60% office waste diversion.	794094	
20.5-3-3	90% landfill diversion for all other inert waste streams.	794886	
20.6	Resilience Action Plan		Plan to be developed
20.6-1	The NOP, as a sub-plan of the SuMP, shall prepare within 90 days of contract award, a Resilience Action Plan.	794152	
20.6-2	The Resilience Action Plan shall detail how the Alliance will meet the minimum Res-1: Resilience Plan, Level 1 requirements detailed in the IS V2.0 Technical Manual.	794747	
20.7	Climate and Natural Hazards Risk Adaptation Plan		Plan to be developed
20.7-1	The NOP, as a sub-plan of the SuMP, shall prepare within 90 days of contract award, a Climate and Natural Hazards Risk Adaptation Plan.	794280	

Clause No	SWTC – Book 2: Management Plans Requirements	Doors NG Reference	Where SWTC is addressed in this Plan
20.7-2	Climate and Natural Hazards Risk Adaptation Plan shall detail how the Alliance will meet the minimum Res-2: Climate and Natural Hazards risks, Level 2 requirements detailed in the IS V2.0 Technical Manual*.	795029	
20.8	Water Management Plan		Plan to be developed
20.8-1	The NOP, as a sub-plan of the SuMP, shall prepare within 90 days of contract award, a Water Management Plan.	795109	
20.8-2	The NOP shall develop a Water Management Plan, to meet the requirements the METRONET Scope of Works - Water Management Plan for METRONET Transport Infrastructure and Stations (refer to Book 5).	794992	
20.8-3	The NOP shall develop a Water Management Plan in consideration of: 1. METRONET A Guide to Water Sensitive Urban Design for Public Transport Infrastructure in Western Australia 2. METRONET Water Conservation and Efficiency Feasibility Study for Transport Infrastructure in Perth"	891331	
20.9	Infrastructure Sustainability Rating		
20.9-1	The NOP shall outline in the SuMP the nominated credit levels being pursued to achieve at least 50* points, a 'Silver' Infrastructure Sustainability (IS) 'Design' and 'As Built' rating under version 2.1 of the IS Rating Tool*.	795092	Appendix D
20.9-2	The NOP shall outline in the SuMP the key deliverables, timing and respective discipline leads responsible for achieving the following minimum Infrastructure Sustainability credits: * i. Con-2 Urban and Landscape Design Context - Level 2 ii. Lea-1 Integrating Sustainability - Level 2 iii. Lea-2 Risks and Opportunities - Level 2 iv. Lea-3 Knowledge Sharing - Level 2 v. Spr-1 Risk and Opportunity Assessment and Procurement Strategy - Level 1 vi. Res-1 Resilience - Level 2 vii. Res-2 Climate Change and Natural Hazard Risks - Level 2 viii. Ecn-1 Options Assessment - Level 2	794807	Table 6 & Appendix D

Clause No	SWTC – Book 2: Management Plans Requirements	Doors NG Reference	Where SWTC is addressed in this Plan
	ix. Ecn-4 Economic viability and financial affordability - Level 2		
	x. Ene-1 Energy Efficiency - Level 1		
	xi. Ene-2 Renewable Energy - Level 1		
	xii. Gre-1 Green Infrastructure Level 1		
	xiii. Env-1 Receiving Water Quality - Level 1		
	xiv. Env-2 Noise - Level 1		
	xv. Env-3 Vibration - Level 1		
	xvi. Env-5 Light Pollution - Level 1		
	xvii. Rso-1 Resource Efficiency Strategy and Management - Level 2		
	xviii. Rso-2 Contamination and Remediation - Level 2		
	xix. Rso-3 Management of Acid Sulfate Soil - Level 2		
	xx. Rso-4 Resources recovery - Level 2		
	xxi. Rso-6 Material Lifecycle Impact Measure and Management - Level 1		
	xxii. Wat-1 Avoiding Water Use - Level 1		
	xxiii. Wat-2 Utilising appropriate water sources - Level 1		
	xxiv. Eco-1 Ecological Assessment and Risk Management - Level 1		
	xxv. Eco-2 Ecological Monitoring - Level 1		
	xxvi. Sta-1 Stakeholder Engagement Strategy Development - Level 2		
	xxvii. Leg-1 Leaving a Lasting Legacy - Level 2		
	xxviii. Her-1 Heritage Assessment and Monitoring - Level 2		
	xxix. Wfs-1 Strategic Workforce Planning - Level 2		
	xxx. Wfs-4 Diversity and Inclusion - Level 2		
20.10	Green Star Rating and Environmentally Sustainable Design		Submit as separate document
20.10-1	The NOP shall provide a Green Star Assessment and Strategy, within 60 days of contract award that outlines:	795870	

Clause No	SWTC – Book 2: Management Plans Requirements	Doors NG Reference	Where SWTC is addressed in this Plan
	<p>xxxi. An assessment of the credits being pursued and estimated points achieved by the Reference Design under the specified rating tool.</p> <p>xxxii. Strategy to achieve the rating target to deliver best value outcomes, including identifying any specific priority credits under the specified rating tool.</p> <p>xxxiii. Details any departures from ESD Specification for Green Star Stations.</p>		
20.10-2	<p>The Green Star Assessment and Strategy shall be appropriate to support the achievement of the METRONET Sustainability Strategy (PRO-MNO-MET-SU- PLN-0002) for:</p> <p>xxxiv. Objectives;</p> <p>xxxv. Targets; and</p> <p>xxxvi. Transport Infrastructure Target Outcomes.</p>	794504	
20.10-3	The NOP shall outline in the Green Star Assessment and Strategy how it will achieve:	794773	
20.10-3-1	Four Star Design Green Star rating for Byford Station under the Green Building Council of Australia (GBCA), Green Star - Railway Stations v1.1.	794451	
20.10-3-2	Four Star As Built Green Star rating for Byford Station under the GBCA, Green Star - Railway Stations v1.1.	794979	
20.10-3-3	The minimum requirements of the ESD - Specification (refer to Book 5).	795698	

***Subject to approval of Memorandum of Understanding and associated SWTC updated requirements**

Appendix G: Australian Performance: Sustainable Development Goals 2020 Review

DASHBOARD RESULTS (CONDENSED)

ASSESSMENT OF TRENDS

● **On track**

>90% of the desired rate of change (compound annual growth rate or CAGR) to meet the target.

● **Needs improvement**

Current value is better than target value, but trend >0% in wrong direction OR 50-90% of the desired rate of change (CAGR) to meet target.

● **Breakthrough needed**

0-50% of desired rate of change (CAGR).

● **Off track**

Current value is worse than target value and observed rate of change (CAGR) >0% in wrong direction.

ASSESSMENT OF COVID-19 IMPACTS

↗ ↘ **Mainly positive impact**

→ **Mixed impact**

↘ ↗ **Mainly negative impact**

— **Impact limited or unclear**

KEY

*: No 2030 Target. Benchmark used instead of target.

#: Short term trend used in this instance

INDICATOR	LATEST VALUE (~2018/9)	2030 TARGET	LONG-TERM TREND (CAGR)	COVID IMPACT
SDG 1: End Poverty				
1.2.1 Proportion of population living below the national poverty line of 50% of median equivalent income (%)	13.1	6.4	●	↗
1.3.NEW Adequacy of welfare payments compared to the poverty line (baseline = single person without children including housing benefits) (%)	68	100	●	↗
1.4.NEW Households able to raise \$2,000 within a week for something important (%)	80.0	>90	●	→
SDG 2: Food & Agriculture				
2.2.2.ALT Prevalence of obesity, proportion of obese persons (body mass index >=30) (%)	31.3	<10	●	—
SDG 3: Good Health & Well-being				
3.4.2 Suicide mortality rate (per 100,000 population)	12.1	8.5	●	—
3.4.NEW1 Proportion of persons with high/very high psychological distress (18 years and over) (%)	13.0	7.9	●	↗
3.4.NEW2 Average life expectancy (total population; both sexes) (years)	82.8	83.6	●	—
3.4.NEW3 Indigenous life expectancy (both sexes) (years)	73.6	83.6	●	—
3.5.2 Harmful use of alcohol - alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol (L)	9.5	8.6	●	→

INDICATOR	LATEST VALUE (~2018/9)	2030 TARGET	LONG-TERM TREND	COVID IMPACT
SDG 4: Quality Education				
4.2.1 Proportion of children who are developmentally vulnerable in 2 or more domains (physical, social, emotional, language, communication) (%)	11.0	5.6	●	↗
4.3.1.ALT Proportion of persons aged 25-64 with a tertiary education (%)	45.7	50.6	●	↗
4.5.1 Low to high socio-economic parity in mathematics (ratio, parity = 1)	0.71	0.82	●	↘
SDG 5: Gender Equality				
5.2.1 Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months (%)	2.3	<0.1	●	↗
5.4.1.ALT Mean time spent on housework and care, by gender, persons aged 15-64, (gender parity = 1)	1.67	<1.05	●	↗
5.5.NEW Gender pay gap in full-time average weekly earnings of women and men (%)	13.9	<5	●	→
SDG 6: Clean Water & Sanitation				
6.1.NEW Average weekly expenditure on water, sewerage and wastewater as a share of household disposable income (all households) (%)	2.17	<3*	●	—
6.4.1.ALT Water consumption per capita (m3)	703.1	653	●	—
SDG 7: Affordable & Clean Energy				
7.1.NEW Average weekly expenditure on electricity as a share of household disposable income (all households) (%)	3.31	<3*	●	↗
7.2.1 Renewable energy share in the total final energy consumption (%)	9.6	30	●	—
7.2.1.ALT Renewable energy share in electricity (%)	19.8	55	●	—
7.3.NEW Energy productivity rate of improvement (index 2000=100)	135.0	212	●	—
7.3.NEW2 Residential total final energy consumption per capita (Gj)	18.23	9.5	●	↗
SDG 8: Decent Work & Economic Growth				
8.1.NEW1 Real net national disposable income per capita (\$)	60.2K	66.4K	●	↘
8.1.NEW2 Government net debt as share of GDP (%)	19.2	47.9*	●	↗
8.1.NEW3 Household debt as share of GDP (%)	119.5	67.3*	●	→
8.5.1.ALT Annual real growth in average weekly earnings (index 2000=100, both sexes)	130.7	155.3	●	→
8.5.2 Unemployment rate (%)	5.2	5	●	↗
8.5.2.ALT Underemployment rate (%)	8.3	6.3	●	↗










INDICATOR	LATEST VALUE (~2018/9)	2030 TARGET	LONG-TERM TREND	COVID IMPACT
8.5.NEW1 Employment to population ratio (%)	62.5	65.9	●	↘
8.6.1 Proportion of youth (aged 15–24 years) not in education, employment or training (%)	11.8	5.91	●	↗
SDG 9: Industry, Innovation & Infrastructure				
9.1.NEW Value of construction work done for the public sector as proportion of GDP (%)	1.85	2.23	●	—
9.5.1 Research and development expenditure as a proportion of GDP (%)	1.79	2.4	●	↘
9.5.2ALT Investment in knowledge-based capital as share of GDP (%)	2.53	3.96	●	↘
SDG 10: Reduced Inequalities				
10.1.1 Growth rates of household income among the bottom 40% of the population compared to the total population (ratio, 1=parity)	0.99	>1	●	→
10.1.NEW1 Gini coefficient (equivalised net worth)	0.62	0.52	●	↗
10.1.NEW2 Share of household net worth of first and second quintiles (%)	5.4	8.16	●	↘
SDG 11: Sustainable Cities & Communities				
11.1.NEW1 Lower income renter households paying more than 30% of income on housing costs (%)	43.1	31.9	●	↗
11.1.NEW2 Housing costs as a proportion of gross household income (%)	13.9	12.0	●	↗
11.1.NEW3 Homelessness – clients of specialist homelessness services (per 10,000 population)	116.2	92.5	●#	↗
SDG 12: Responsible Consumption & Production				
12.2.1 Material footprint per capita (t)	43.1	25.3	●	↘
12.5.NEW Non-recycled municipal solid waste per capita (kg)	559.3	365	●	—
12.6.1 Share of ASX200 listed companies submitting sustainability reports ranked as moderate or better (%)	75.5	100	●	—
SDG 13: Climate Action				
13.1.1 Number of directly affected persons attributed to disasters (per 100,000 population, 3-year avg)	54.9	17.8	●	↗
13.2.2 Total greenhouse gas emissions (Mt CO2-e)	531.2	307.1	●	↘
SDG 14: Life Below Water				
14.2.NEW Ocean biodiversity: Great Barrer Reef mean hard coral cover (mean value, 3-year avg)	16.9	24.1	●	—
SDG 15: Life on Land				
15.1.1. Total forest area (million ha)	134.0	138.1	●	—
15.5.1 Red List Index (score 0-1)	0.82	0.9	●	—

INDICATOR	LATEST VALUE (~2018/9)	2030 TARGET	LONG-TERM TREND	COVID IMPACT
SDG 16: Trust, Safety & Strong Institutions				
16.1.1 Number of victims of intentional homicide (per 100,000 population)	0.89	0.85	●	—
16.1.4.ALT Proportion of the population who feel safe walking alone at night in the city or area where they live (%)	64.3	80	●	—
16.2.3.ALT Victims of sexual assault (per 100,000 population)	106.0	46.1	●	—
16.3.NEW Prison population (per 100,000 people)	218.6	99	●	—
16.6.NEW1 Levels of Trust - Edelman Trust Index (mass population, %)	46	>60	●	↗
16.6.NEW2 Proportion of persons (aged 18 and over) who have undertaken unpaid voluntary work through an organisation in the last 12 months (%)	28.8	35.9	●	—
SDG 17: Partnership for the Goals				
17.2.1 Net official development assistance (ODA) as share of Gross National Income (GNI) (%)	0.22	0.7	●	—
17.8.1 Internet users per 100 inhabitants	86.6	98.2	●	↗
17.8.NEW Broadband internet speeds (broadband connections >24MBps)	65.5	100	●#	—

METRONET focus areas and target outcomes mapped to relevant UN Sus goals (METRONET, 2021)

People and Place (Social)













THEME	OBJECTIVE	TARGETS	OUTCOMES	
 GOVERNANCE	Provide leadership, best practice, transparency and accountability in collaboration with key stakeholders and partners.	<ul style="list-style-type: none"> Projects target Green Star rating 4 or above for new stations and ISC silver or above for transport infrastructure (see appendix 2). Report publicly on sustainability performance and audit projects annually. Engage with key stakeholders and community to inform and guide. Proactively release public materials and communications. Projects to report quarterly against strategy targets. 	<ul style="list-style-type: none"> Environmentally sustainable design (ESD) is applied and incorporated for all new METRONET stations and buildings. Stations and transport infrastructure projects are future-proofed, healthier environments with lower energy, water and material related emissions achieved through Green Star and ISC ratings. Projects produce annual sustainability reports and close out non-conformance identified through sustainability audits. METRONET provides a platform for governance, transparency, accountability and knowledge sharing across government departments and projects. Environmental, social and economic opportunities for the METRONET program are formally captured, tracked and where high value adopted across delivery phases by METRONET, MLA and contractors. 	 
 CONNECTIVITY AMENITY & LIVEABILITY	Station and precinct designs are safe and accessible responding appropriately to sustainability, cultural heritage and public art.	<ul style="list-style-type: none"> The project will integrate a wayfinding and/or station access strategy into planning and design. Final place plans and METRONET precinct planning incorporate the sustainability, Gnarla Biddi and public art strategies appropriate to local context and identity. Precinct planning and stations include accessible design and Crime Prevention through Environmental Design (CPTED) principles by undertaking assessments. Stations and precincts include provision for electric vehicle charging. Urban heat island effect is minimised with hard landscaping materials selected with an average Area Solar Reflectance Index >39. 	<ul style="list-style-type: none"> Present and future infrastructure needs are considered in design, including active transport modes such as walking and cycling, station/bus access and car parking areas to support changing transport mode options and technology (i.e. electric vehicles, autonomous vehicles, e-scooters and/or car-sharing modes). Station and precinct designs promote a safe and accessible environment for users. Design of new facilities incorporates initiatives to promote the health and wellbeing of future occupants/users. Placemaking: Cultural and environmental context is identified and applied in design of public realm infrastructure, buildings and public art within a precinct. Public Space: Management of environmental values across the precinct will align with opportunities for community amenity and well-being and provision of public open space. Stations, buildings and surrounding precinct areas are universally accessible. Urban heat island effect is assessed and mitigated in stations and precincts to maximise community amenity and wellbeing. 	 
 RESILIENCE & ADAPTABILITY	Ensure climate change impacts and broader resilience risk is integrated into design, with impacts mitigated where feasible.	<ul style="list-style-type: none"> Undertake a climate change vulnerability assessment for precinct planning, stations and transport infrastructure with recommended adaptations/mitigations implemented for identified high, very high risks. Undertake a risk resilience assessment for precinct planning, stations and transport infrastructure with recommended adaptations/mitigations implemented for identified high, very high risks. 	<ul style="list-style-type: none"> Deliver a diversity of dwelling types and an increase in the number of homes that are affordable including social housing within METRONET station precincts. Resilience is formally evaluated for station precincts and transport infrastructure, to assess, understand and mitigate key short-term shocks and long-term stresses that may impact the success and the delivery of strong and connected communities. Infrastructure: The local infrastructure context is identified in precinct planning and a formal engineering assessment is undertaken in early design to identify opportunities for electric, automated and shared vehicle infrastructure. Climate change risks are formally evaluated for station precincts and transport infrastructure, to assess, understand and mitigate risks that may impact on the success and the delivery of infrastructure. 	 

Environment

THEME	OBJECTIVE	TARGETS	OUTCOMES	
 <p>ENVIRONMENT VALUES & BIODIVERSITY</p>	<p>Vegetation clearing and urban heat island effect is minimised with drought tolerant species used in landscaping.</p>	<ul style="list-style-type: none"> Native vegetation retention is prioritised. Where impacts are unavoidable, aim to minimise, rehabilitate or offset impacts to native vegetation. The landscaping includes a diversity of species and >80% are drought tolerant and/or indigenous plants. At least 20% vegetation canopy cover of the project footprint, or LGA target where higher. 	<ul style="list-style-type: none"> Projects have considered LGA and DPLH guidance regarding urban forest strategies and implemented complementary initiatives to reduce tree loss, and where possible contribute to a net-benefit (increase) in tree canopy cover in station and public realm areas. A landscape architect/designer involved early at project concept design to support realisation of good landscape design and opportunities for community amenity, lower maintenance costs, environmental values, green infrastructure and WSUD. Spatially capture cleared areas of native vegetation. Linear infrastructure includes drought tolerant, low maintenance species. Landscape design plans integrate and enhance biodiversity, tree canopy coverage, fire risk resilience and WSUD. 	
 <p>WATER</p>	<p>Water efficiency and fit-for-purpose water source is maximised on all projects.</p>	<ul style="list-style-type: none"> >20% whole-of-life direct water use saving against life cycle assessment (LCA) baseline. Appropriate Water Sensitive Urban Design (WSUD) measures are integrated into planning and design of stations, precincts and transport infrastructure including water management systems. Design for zero potable water use beyond establishment at stations, and minimal irrigation beyond establishment for wider precinct. 	<ul style="list-style-type: none"> The water management system/s and design response/s for transport infrastructure and precincts incorporates appropriate protection from flooding and inundation; consideration of safety, amenity and serviceability; and minimisation of any adverse impacts to the surrounding environment and water resources. A precinct local water management strategy is formalised and refined throughout delivery and supports the objectives of the <i>Waterwise Perth Action Plan</i>. Precinct planning identifies the local infrastructure context and a formal engineering assessment is undertaken in early design to incorporate water efficiency, including rainwater capture and recycling/re-use systems. LCA is integrated with the design process for stations and transport infrastructure during project planning and reviewed at key design milestones to inform good decision-making. Key design decisions impacting the LCA and resource footprint of projects are captured in a project design decision register. Water efficient fixtures incorporated in station design. Water metering/sub-metering and monitoring systems are implemented in station/facility design. 	
 <p>RESOURCE EFFICIENCY</p>	<p>Life cycle impacts and whole-of-life costing are implemented to improve resource efficiency and support the WA waste strategy towards a more circular economy.</p>	<ul style="list-style-type: none"> >20% whole-of-life material (GHG) savings against LCA baseline. >20% recycled content target across key materials (concrete, aggregate, steel, asphalt) during construction. >95% inert spoil diverted from landfill during construction. >90% construction and demolition waste streams diverted from landfill. >75% office waste diverted from landfill during construction. 	<ul style="list-style-type: none"> Waste quantities and landfill diversion are accurately captured, tracked and reported during project construction. A resource construction material register and program is utilised by projects. Recycled products and alternatives are used where viable, instead of virgin materials. Precinct planning identifies the local infrastructure context and a formal engineering assessment is undertaken in early design to incorporate waste management and recycling services, aligned to LGA operations, including community-scale organic waste composting. An LCA is integrated with the design process for stations and transport infrastructure during project planning and reviewed at key design milestones to inform good decision-making. Key design decisions impacting the LCA and the resource footprint of projects are captured in a project design decision register. Whole-of-life cost savings for operations and maintenance are prioritised. 	
 <p>ENERGY & CARBON</p>	<p>In line with the State Government's <i>Climate Policy</i> to achieve net zero GHG emissions by 2050, energy efficiency and carbon reduction initiatives will be implemented.</p>	<ul style="list-style-type: none"> >20% whole-of-life energy (GHG) savings against LCA baseline. Transport infrastructure and precincts have an emissions reduction plan/strategy to support the State Government <i>Climate Policy</i> to achieve net zero emissions for Western Australia by 2050. Install rooftop solar at bus and rail stations to support the State Government <i>Climate Policy</i> action. 	<ul style="list-style-type: none"> GHG emissions are assessed for transport infrastructure projects, commencing in business case development and throughout design. Precinct planning identifies the local infrastructure context and a formal engineering assessment is undertaken in early design to incorporate energy efficiency and carbon reduction measures, considering renewables and local scale generation and storage technologies as part of developments. Energy efficiency opportunities are assessed by transport projects and viable reduction initiatives implemented in both design response and construction practice/methodology. Feasible renewable energy technologies are incorporated in station/facility design. Energy and water metering/sub-metering and monitoring systems are implemented in station/facility design. An LCA is integrated with the design process for projects during planning and reviewed at key design milestones to inform good decision-making. Key design decisions impacting the LCA and the embodied energy footprint of projects materials are captured in a project design decision register. 	

Economy



THEME	OBJECTIVE	TARGETS	OUTCOMES	
 PROCUREMENT & SUPPLY CHAINS	Provide economic opportunities through procurement for local and Aboriginal businesses.	<ul style="list-style-type: none"> Stations and transport projects will develop sustainable procurement strategies and plans. >50% local content for new METRONET railcars. Comply with Western Australian Industry Participation Strategy (WAIPS) local employment and local supply chain plan. Achieve Gnarla Biddi Strategy targets. 	<ul style="list-style-type: none"> Contractors develop and implement a sustainable procurement strategy to manage sub-contractors and suppliers, and improve sustainability outcomes through high impact suppliers and materials. Local employment and manufacturing within Western Australia are expanded and promoted. Environmental Performance Declarations (EPDs) are obtained for key materials. Program for the Endorsement of Forest Certification (PEFC) and Forest Stewardship Council (FSC) certified. Preference is given to steel procured from a supplier accredited to the Environmental Sustainability Charter of the Australian Steel Institute (ASI). 	 
 WORKFORCE	Implementation of a 'Everyone Home Safe, Every Day' approach across all METRONET transport infrastructure projects through training and workforce development programs and promotion of health, safety and diversity within the workforce.	<ul style="list-style-type: none"> 100% safety induction training of personnel on all METRONET projects. 100% training in PTA Rail Safety Awareness across METRONET program. > 5% apprentices or trainees, including students from the METRONET Trade Training Centre. Projects implement health, diversity and well-being plans for their workforce. Minimum 20% female workforce participation across the program. 	<ul style="list-style-type: none"> Development of a newly trained workforce with experience working on construction of METRONET projects. Safety conscious workforce that considers the safety of themselves and everyone else. Promoting young people and women to pursue careers in science, technology, engineering and maths (STEM). METRONET supports a more diverse and inclusive workforce with active health and well-being programs. METRONET supports the creation of jobs with transferrable skills beneficial for longer term employment. 	  
 VIALE COMMUNITIES	Support precinct economic activation and affordable housing choices; undertake stakeholder and community informed decision-making.	<ul style="list-style-type: none"> Stakeholder management plans in place for each project. Community consultation is undertaken for METRONET projects. Increase available and affordable housing in METRONET station precincts to support a State Government target of increasing the number of transit orientated homes by 45% by 2030 compared to 2018. 	<ul style="list-style-type: none"> Key risks and opportunities for precinct economic activation are considered in resilience assessments, with actions assigned to delivery stakeholders for implementation. Precinct scale strategies are developed to attract a range of businesses and services that support local employment. Stakeholder and community priorities are understood early, with a stakeholder and community engagement plan developed in planning and implemented across delivery. The stakeholder and community engagement plan provides opportunity for the community in precinct planning and design. The community is consulted on their values and priorities for a precinct area, with values considered in precinct design and delivery. 	 

Appendix H: Decision Making Framework for 'Significant' Project Risks and Opportunities

1. Introduction

As part of the IS Rating delivery for BRE, the project has established a Decision-Making Framework to ensure significant project decisions are undertaken using a Multi Criteria Analysis (MCA) that incorporates social, economic, and environmental considerations.

This procedure aims to concisely define the framework and the process to be followed by the project team to promote sustainable outcomes and application of economic and financial techniques to ensure adequate funding for the project's life.

2. IS Rating Requirements

IS Rating credit, Ecn-1, seeks to reward broad identification and thorough assessment of project options, and careful assessment and measurement of risk and whole-of-life financial and economic viability. The requirements of this credit have formed the basis for this Significant Decision-Making procedure.

Clear parameters and thresholds for defining 'significant' project initiatives have been defined in section 3.1, and a formal assessment technique considering environmental, social and economic impacts has been highlighted in section 3.2.2. Key to the options assessment process is the genuine consideration of associated social, economic and environmental aspects. Funding and financing requirements throughout the project's life must be well understood through consideration of ongoing operational, maintenance and adaptive reuse costs.

The Multi Criteria assessment developed as part of the BRE Significant Decision-Making Tool and included in Section 3 ensures that:

- criteria are weighted in terms of their relative importance
- at least one criterion in environmental, social and economic areas is incorporated and criteria must be weighted equally across them
- externalities are considered in the assessment and can be monetized. Externalities are impacts (positive or negative) imposed on society which are not reflected in normal pricing charges, and which are not generally costed as part of a traditional business e.g., noise, emissions and social impacts.

This framework will allow the Project to make decisions fully informed by an options assessment with justification based on environmental, social, and economic grounds.

3. Decision Making Framework

3.1 Significant Decision Parameters

There are certain commercial situations in which a direction and/or variation is issued by Public Transport Authority (PTA), our client, which are not within the ability of MetCONNx to influence. MetCONNx will therefore only assess 'Contractor (MetCONNx) initiated change', not PTA imposed scope changes. With this understanding, the Alliance Management Team (AMT) has agreed on the definition of what constitutes a 'significant decision', being where any of the below are true:

- >\$500,000 change to project cost
- >2 weeks impact to project critical path
- Project risks & opportunities adaptation treatment options for 'high' or 'very high' items (inclusive of environmental, societal and stakeholder items) identified (as per LOR Risk Assessment Standards)
- Achievement of a Project Key Result Area (KRA) (Schedule 6 of PPA) is impacted

Significant Design Decisions will be captured in a MetCONNx Project Key Design Decisions Register which will be provided to PTA on a quarterly basis for review.

3.1.1 Other Decisions that Require Multi-Criteria Analysis

At a minimum, opportunities relating to the achievement of the following ISC credits (V2.1 of the IS tool) must be assessed using the tool:

- Res-1
- Res-2
- Ene-1
- Wat-1
- Wat-2
- Rso-1
- Rso-2
- Rso-4

The AMT has agreed that in instances where decisions do not meet the 'significant' criteria listed in Section 3.1, that a high-level options review can be undertaken through a condensed process with the relevant team members (as required).

3.1.1.1 Supply Chain and Procurement Risks

Supplier and/or Sub-contractor risk assessment and selection (Spr-2) is analysed through Laing O'Rourke/MetCONNX's robust 'Package Grading Process' (separate to the process described in this procedure), to identify material sustainability risks and opportunities in tender documentation for potential Suppliers and/or Sub-contractors. Non-price evaluation criteria within the package grading process assesses sustainability performance of the supply chain, while the Quality and Risk Team undertake regular Supply chain audits during package delivery to identify concerns, highlight risks and mitigation/rectification actions early.

3.2 Options Assessment

Options for significant project initiatives are to be evaluated using the Multi-Criteria Analysis (MCA) tool, which considers environmental, social and economic impacts.

3.2.1 Multi-disciplinary Requirement

Arrange for a multi-disciplinary workshop or utilise a forum with a multi-disciplinary team present to assess initiative options. As a last resort, this may occur via email chain.

This team should include as a minimum:

- Environmental experts (Environmental Manager or equivalent delegate)
- Social/community experts (Community Relations and Stakeholder Manager or equivalent delegate)
- Business case experts (Commercial Manager or equivalent delegate)
- Infrastructure experts (Design and Construction Managers/Project Director or equivalent delegate)

3.2.2 Using the Significant Decision-Making Tool

Utilise the BRE Significant Decision Making-Tool as an MCA template. The tool is designed to assist in decision making by assessing the relative merits of each option and (where applicable) prompts explanations and justifications of selections (positive/negative) within the spreadsheet.

The team should choose a 'Base Case' for comparison, which would typically be a "business as usual" method, standard/historical design option or what is currently designed; to then compare against other alternative options, over the useful life of the asset.

The following default aspects and associated total category weightings are included in the tool:

- Financial – 50%
- Economic (non-financial) aspect – 10%
- Technical aspect – 20%
- Environmental aspect – 10%
- Social aspect – 10%

Criteria must incorporate a full range of sustainability aspects relevant to the initiative being assessed (with at least one criterion each for impacts on the environment, society and the economy). Criteria must be weighted (or ranked) in terms of their relative importance in the options assessment. The sum of weighted or ranked criteria across the aspects of environment, social and economic, must be equal to at least 20% unless justification can be provided.

Whole-of-life costing must form part of the analysis for significant project initiative, considering the total costs of the investment decision across the asset's life. The whole of life costing may be high level or detailed depending on the nature, complexity and scale of the initiative being examined.

The following qualitative and quantitative criteria are included as a guide in the MCA tool under their associated aspect:

Table 1: MCA Criteria Guide

MCA Criteria Guide			
Financial	<ul style="list-style-type: none"> • CAPEX <ul style="list-style-type: none"> ○ Up-front and transactional costs (including design, construction costs) ○ Capital costs ○ Holding costs • OPEX <ul style="list-style-type: none"> ○ Costs incurred during operations ○ Costs incurred during the expected life of the investment to upgrade or refresh an asset. ○ End of life decommissioning ○ Revenue streams for the infrastructure ○ Organisational benefits (if they can be monetised). • Externalities <ul style="list-style-type: none"> ○ Social Cost of Carbon ○ Any other as identified 	Social	<ul style="list-style-type: none"> • Local business impacts • Community impacts • User impacts • Heritage impacts • Climate change and resilience adaptation
Economic	<ul style="list-style-type: none"> • Local industry participation • Diverse workforce participation • Local supply chain impact • Aboriginal supply chain impact • Reputational impact 	Technical	<ul style="list-style-type: none"> • Constructability • Resources • Safety in Design • Construction Safety • Operational Life • Maintainability • Adaptability
Environmental	<ul style="list-style-type: none"> • Energy and Carbon • Materials quantities/reduction • Waste quantities/reduction • Resilience to Climate Change • Water use/reduction • Pollution (air, land, water, noise, vibration) 		

3.2.2.1 Externalities

Where applicable, the monetised cost of externalities* should be considered in options assessments. This cost should be calculated in terms of Net Present Value (NPV) and supported by non-monetised assessments where monetary analysis is not viable.

- Social cost of carbon. Refer to US EPA 2016 SCC estimates for guidance.
- Value of impacts to external parties (e.g. amenity, ecosystems, pollution, etc). Refer to [Green Book Annex 1](#) (United Kingdom HM Treasury, 2022).

To provide assurance of accurate externality accounting, this part of the assessment must be reviewed by a suitably qualified professional. The review must cover the assessment's assumptions, reasoning and outcomes.

*Externalities are impacts (resulting from an action) that affect external parties, and that are not included within standard pricing mechanisms. E.g., increased noise pollution from construction and operation of the new rail line to nearby residents.

SIGNIFICANT DECISION MAKING TOOL Byford Rail Extension	
<p>Introduction</p> <p>This tool contains a multi-criteria analysis (MCA) which is designed to assist in decision making. Choose a Base Case for comparison, which is a business as usual method, standard/historical design option, what is currently designed etc. and compare against other alternatives over the useful life of the asset. Ideally decisions should be made as part of a multi-disciplinary group, even if via email chain while discussing. Following the decision, the proposed option must be assessed using the Monetised Assessment tab or via an investment options assessment report.</p> <p>Significant decisions required to utilise this tool are where one of the following is true:</p> <ul style="list-style-type: none"> >\$500,000 change to project cost > 2 weeks impact to project critical path > Project risks & opportunities adaptation treatment options for 'high' or 'very high' items (inclusive of environmental, societal and stakeholder items) identified (as per LOR Risk Assessment Standards) > Achievement of a Project Key Result Area (KRA) (Schedule 6 of PPA) is impacted <p>>Options assessments for:</p> <ul style="list-style-type: none"> • Climate Change, Natural Hazard and Resilience adaptation treatment options for 'high' or 'very high' items identified (as per LOR Risk Assessment Standards) • Energy reduction & renewables • Water reduction & alternatives to potable consumption • Resource efficiency (contaminated land, alternative materials, re-use/re-cycling of materials) 	
<p>Instructions on MCA</p>	
1	Options must be assessed through a multidisciplinary team workshop or alike. Ensure author and contributors include, as a minimum: <ul style="list-style-type: none"> - Environmental experts - Social/community experts - Business case experts - Infrastructure experts
2	Criteria must be weighted (or ranked) in terms of their relative importance. The options assessment must incorporate at least one criteria directly relating to each of the environmental, social and economic areas. The author and contributors can review the criteria and adjust with more applicable criteria as necessary based on the decision rather than user preference. At least one criteria must be included for environmental, social and local economic (not financial) considerations.
3	Externalities must be considered in the assessment of options. Externalities should be monetised wherever possible. Where monetisation is used, justification must be provided for the cost benchmarks used for monetised externalities; for instance, whether existing secondary benchmarks are applied or project specific benchmarks are developed. Monetised externalities must be calculated in terms of Net Present Value (NPV) and must feed into the formal assessment. Externalities are impacts (positive or negative) imposed on society which are not reflected in normal pricing charges and which are not generally costed as part of a traditional business e.g. noise, emissions and social impacts, etc.
4	The assessment of significant project related initiatives must consider a broad range of options. There must be a clear rationale for determining the preferred option for significant project issues through a formal assessment method considering material environmental, social and economic aspects. The choice of assessment methodology must be justified. Options must be identified or assessed through a multidisciplinary team workshop or alike. The relative merits of each option must be thoroughly considered, explained and justified.
5	It must be demonstrated how decision-making is informed by the options assessment, with justification based on environmental, social and economic grounds. Evidence that sustainability lessons learned from previous or similar projects have been incorporated into the options assessment and decision making processes should be provided.
6	Once complete, save a copy in SharePoint: 1480 Sustainability > Options Assessments and Business Cases and email to damon.carter@metconnx.com.au; emma.kindness@metconnx.com.au

MCA Criteria Assessment Information		
Assessment rating	Description	Score
Strongly negative	Major negative impact/outcome	-3
	Long term effects	
	Possibly irreversible effects	
Moderately negative	Moderate negative impact/outcome	-2
	Impacts may be manageable	
Slightly negative	Minimal negative impact/outcome	-1
	Short term impact/outcome	
	Impacts can be managed or mitigated	
Neutral	No discernible impact/outcome	0
Slightly positive	Minor positive impact/outcome	1
	Possible only short term	
	Confined to a limited area	
Moderately positive	Moderate positive impact/outcome	2
	May provide new opportunities or improvements	
Strongly positive	Major positive impacts/outcomes	3
	Long-term improvements	

MCA – Ecn-1 Options Assessment (Template Tab)

SIGNIFICANT DECISION MAKING TOOL
Byford Rail Extension



Multi Criteria Analysis													
Package													
Revision Reference													
Revision Description													
Option Number	Brief Description	Score via MCA before (Y/N)											
Option 1:													
Option 2:													
Option 3:													
Option 4:													
Role of MCA Analysis													
Contributors													
Notes													
Multi Criteria Analysis													
Category	Criteria	Option 1 Beneficialness, explanation and justification	Weighted criteria score	Category Weighting	Weighted score	Option 2 Beneficialness, explanation and justification	Weighted criteria score	Category Weighting	Weighted score	Option 3 Beneficialness, explanation and justification	Weighted criteria score	Category Weighting	Weighted score
Cost	CAPEX			50%	0			50%	0			50%	0
	OPEX			50%	0			50%	0			50%	0
Economic	Local industry participation			10%	0			10%	0			10%	0
	Local supply chain impact			10%	0			10%	0			10%	0
	Regional supply chain impact			10%	0			10%	0			10%	0
	Regional demand			10%	0			10%	0			10%	0
Environmental	Energy and Carbon			10%	0			10%	0			10%	0
	Water quality/reduction			10%	0			10%	0			10%	0
	Waste quality/reduction			10%	0			10%	0			10%	0
	Resilience to Climate Change			10%	0			10%	0			10%	0
	Water use/reduction			10%	0			10%	0			10%	0
Soil (air, land, water, noise, vibration)			10%	0			10%	0			10%	0	
Social	Local business impacts			10%	0			10%	0			10%	0
	Local industry participation opportunities			10%	0			10%	0			10%	0
	Regional employment opportunities			10%	0			10%	0			10%	0
	Community impacts			10%	0			10%	0			10%	0
	Other impacts			10%	0			10%	0			10%	0
Technical	Resilience impacts			10%	0			10%	0			10%	0
	Cost/feasibility			10%	0			10%	0			10%	0
	Resilience			10%	0			10%	0			10%	0
	Safety in Design			10%	0			10%	0			10%	0
	Construction Safety			10%	0			10%	0			10%	0
	Operational Life			10%	0			10%	0			10%	0
	Maintainability			10%	0			10%	0			10%	0
Reliability			10%	0			10%	0			10%	0	
TOTAL SCORE			0	0	0	0	0	0	0	0	0	0	

SIGNIFICANT DECISION MAKING TOOL
Byford Rail Extension



Multi Criteria Analysis

Package	
Decision Reference	
Date of Monetised Assessment	
Assessor	

Category	Type	Analysis			
		Option 1 (considerations, explanation and justification)	Option 2 (considerations, explanation and justification)	Option 3 (considerations, explanation and justification)	Option 4 (considerations, explanation and justification)
CAPEX	Up-front and transactional costs				
	Capital Costs				
	Holding Costs				
OPEX	Costs incurred during operations				
	Costs incurred during the expected life of the investment to upgrade or refresh an asset				
	End of life decommissioning				
	Revenue streams for the infrastructure				
	Organisational benefits				
Externalities	Social Cost of Carbon				
	Add as required....				

Additional Contributor / Date / Comments

Summary of Analysis

OPPORTUNITY							
Probability Scale			(1) Improbable	(2) Remote	(3) Occasional	(4) Probable	(5) Certain
	Weighting		2	4	8	16	32
	Weighting	Likelihood	10%	25%	50%	75%	100%
Impact Scale			(1) Low	(2) Moderate	(3) Material	(4) Positive	(5) Significantly Positive
	Weighting		2	4	8	16	32
		Cost (Savings)	Less than \$250,000	\$250,000 to < \$2.5m	\$2.5m to < \$10m	\$10m to < \$20m	Greater than \$20m
		Programme	Minor non critical path	Major non critical path gain	Minor critical path gain	Major critical path gain	Major critical path programme savings that has significant savings to the programme completion date
		Reputation	Minor improvement in public profile - Small, localised improvement	Increased public profile, local political impact, localised media impact, localised stakeholder impact (client, community, supply chain)	Positive media exposure for the organisation/project. Improved profile with stakeholders (client, community, supply chain), regional political and/or ministerial level	Ongoing positive media impact and external recognition e.g awards for contribution to an industry / sector	Exceptional improvement in reputation in the community, region and/or at a political level and with stakeholders
RAG Matrix			Impact (highest score from Financial/Strategy/Reputation assessment)				
(Probability x Impact)			(1) Low	(2) Moderate	(3) Material	(4) Positive	(5) Significantly Positive
	Weighting		2	4	8	16	32
		(5) Certain	64	128	256	512	1024
		(4) Probable	32	64	128	256	512
		(3) Occasional	16	32	64	128	256
		(2) Remote	8	16	32	64	128
		(1) Improbable	4	8	16	32	64

Appendix I: Sustainable Procurement Management Plan

(Extract from Section 6 of R30-MET-PLN-PR-000-00001 - Procurement and Participation Management Plan)

MetCONNX partner Laing O'Rourke has established groupwide procurement processes, upon which the sustainability aspirations and requirements of both this Plan and the Sustainability Management Plan can be integrated and is aligned with the following standards:

- AS ISO 20400:2018 Sustainable Procurement - Guidance.
- IS V2.1 Technical Manual

MetCONNX will ensure that sustainable procurement considerations are made at each step of the process, as set out in this section.

10.2 Sustainable Procurement Policy

MetCONNX have established a Sustainable Procurement Policy (**Error! Reference source not found.** setting out sustainable procurement objectives relating to environment, society and economy. This Policy creates a common thread through the procurement phase providing a continuity of approach in:

1. supply chain risk & opportunity assessment,
2. sustainable procurement criteria
3. ongoing supplier management reporting.

This approach to procurement will support the overall delivery of project sustainability outcomes embedded in the design of the project, this Plan, The Sustainability Management Plan (R30-MET-PLN-SU-000-00001) and the Aboriginal Engagement and Participation Plan (R30-MET-PLN-AE-000-00001).

10.3 Objectives and Targets

Progress against sustainable procurement objectives and SMART targets are reported at the Sustainability Leadership Committee.

Table 21 Sustainable Procurement Objectives and Targets

Objective	Target	ISC Credit	Responsibility
Address sustainability risks and opportunities in the supply chain, building a robust procurement process which achieves sustainable outcomes through collaboration.	<ul style="list-style-type: none"> • 3% spend on materials or products with sustainability labels used on permanent infrastructure. 	Rso-7, Spr-1	Procurement Manager / Sustainability Manager
Leave a lasting legacy to build capacity in the local economy through supporting Aboriginal Businesses	<ul style="list-style-type: none"> • 3% procurement spend with Aboriginal businesses 	Leg-1, Spr-1, Wfs-1, Wfs-3	Procurement Manager / Aboriginal Participation Advisor
Leave a lasting legacy to build capacity in the local economy through supporting workforce diversity and providing opportunities to those typically excluded from the workforce	<ul style="list-style-type: none"> • Use of existing industry schemes to coordinate procurement, workforce sustainability requirements including legacy and culture 	Leg-1, Wfs-1, Wfs-3	Procurement Lead Human capital Lead
Use a cloud-based supply chain reporting platform to improve reporting on the project. Reporting in our industry is onerous and not adequately reviewed. Ensuring sustainable supply chain outcomes through management by	<ul style="list-style-type: none"> • Utilise LORA's sustainability supply chain portal to trial on this project. 	Inn-1, Spr-3, Rso-6, Ene-1, Wat-1	Commercial Manager / Sustainability Manager

Objective	Target	ISC Credit	Responsibility
collection, tracking, reporting and analysis of sustainability performance data.			

10.4 Sustainable Procurement Process

MetCONNX have implemented an integrated procurement process to manage material supply chain sustainability risks and opportunities, and to enable collaboration with the supply chain to produce sustainable outcomes. This process is as follows in the rest of this section.

10.4.1 Market Analysis: Sustainability Risks and Opportunities

It is important that the procurement and sustainability functions understand how the supply chain will support MetCONNX's sustainability priorities. The first stage is to understand the risks and opportunities of sustainability priorities (also referred to as material aspects) across the Work Package structure, utilising the MetCONNX Package Grading Matrix (Table 23 and Table 24).

Package grading provides a 'heat map' of potential risk/opportunities inherent in individual procurement packages. This heat map can help guide the procurement and delivery strategies to manage opportunity and risk in the achievement of the project sustainability objectives and provides a focused approach to:

- early engagement and market sounding;
- tender submission assessment on each work pack; and
- onward supply chain management.

10.4.1.1 Package Grading Activity

The Packaging Grading process is undertaken in accordance with NOP partner Laing O'Rourke's Package Grading Procedure which stipulates the involvement of key internal stakeholders to ensure a diverse assessment.

The standard Package Grading Matrix Template has been adapted to consider specific Sustainability criteria relating to MetCONNX objectives (**Error! Reference source not found.**) including:

- Environment
- Sustainable products & services and supply chain governance
 - Material sustainability
 - Water efficiency
 - Carbon and energy efficiency
 - Labour and human rights
- Community
 - Fair operating practices and consumer issues
 - Community involvement and development

10.4.1.2 Extended Supply Chains

The extended supply chain of material goods and services is assessed by the Project Sustainability Team to understand any further risks or opportunities. These are environmental or social impacts indirectly caused by MetCONNX procurement activities. The findings of these assessments will be considered in final sub-contracts. For example, assessing modern slavery risks, requirements to provide life cycle analysis data, and assurance of overseas workforce rights.

10.4.2 Invitation to Tender

10.4.2.1 Standard Inclusions

Sustainability requirements are included in all ITT packages and within the Scope of Work documentation. The project has developed standard sustainability requirements and evaluation

criteria for all procurement packages that reflect the sustainability priorities of the project. These requirements are included in the Part C 'General Project Information' document within ITT packs, which form part of contract with selected suppliers.

10.4.2.2 Sub-contract Specific Inclusions

Any packages graded at 3 and above are considered material and will require specific inclusions in Sub-contract scope of work documentation beyond standard compliance and include:

- Specific objectives to respond to the most material risks and/or opportunities identified;
- Monthly reporting on sustainability data (see section 10.4.4.2); and
- Production of a Sustainability Action Plan (see section 10.4.4.1).

There are varying levels of detail in these requirements, depending on the sustainability impact assessed within the package grading process.

10.4.3 Tender Evaluation

The tender scoring evaluation uses a balanced score card which takes into account both price and non-price evaluation criteria, with a minimum 20% of the evaluation being non-price. The final score is summed at the end for consideration of the most appropriate supply chain partner.

All tender submissions are reviewed by a member of the Sustainability team with a suitable qualification and at least 5 years' experience. As part of the tender evaluation, the Sustainability team will complete the non-price evaluation and attend mid-tender meetings for material contracts within the supply chain.

10.4.3.1 A subcontractor recommendation letter to Project Leadership will include performance initiatives which become part of the subcontractor's contract obligations. Evaluation Criteria: Non-Price Considerations

ITT Tender packs include the 'Part E Supply Chain HSES Evaluation' which must be completed by tenderers across all packages. Responses to this form will form part of the tender evaluation, allowing for inclusion of non-price sustainability considerations. As a minimum, scoring criteria shall always be applied to questions around environmental certifications, for example, ISO 14001 and product certifications, Sustainability Policy documents, strategies and ability to deliver the standard sustainability requirements of the Scope of Works.

As a minimum, Tenderers are to include the following Sustainability related information within their Tender response:

3. Sustainability

Element	Response	Minimum Laing O'Rourke Acceptance Levels/Comments
Provide details of your companies Sustainability and Ethical Sourcing Policies to describe how your organisation addresses the sustainability performance of your operations	*Provide details	Rating score contributes to final evaluation
Provide details of how your organisation identifies, assesses and manages sustainability risks and opportunities associated with your operations or products	*Provide details	Rating score contributes to final evaluation
Provide details of your organisations objectives and targets for sustainability	*Provide details	Rating score contributes to final evaluation
Provide details of sustainability credentials of goods and services where relevant, such as EPDs for materials or supply chain audits	*Provide details	Rating score contributes to final evaluation

Material sustainability risks and opportunities identified in Package Grading will prompt appropriate considerations for scope specific requirements to be considered during the evaluation. Evaluation Weightings will be adjusted to favour the supplier that best addresses the most material risks and opportunities in the package, and therefore receive a higher score.

10.4.3.2 Mid-tender Workshop

During the evaluation process the shortlisted Tenderers are invited to meet with representatives involved in the non-price evaluation as well as the Package Managers and Commercial Manager to discuss their Tender. This is an opportunity for the Sustainability representative to interrogate the Tender documentation provided and gain more clarity or confidence around sustainability initiatives put forward, or in some cases, not initially provided. Agreed sustainability objectives shall, in due course, become contract obligations.

10.4.3.3 Unsuccessful Bidder Letter

Unsuccessful tenderers for material packages are provided with an unsuccessful bidder letter which includes feedback on their responses to both price and non-price sustainability requirements. This feedback is relevant to the material risks and opportunities identified, the purpose being to enable suppliers to understand where they have performed well and where they could improve. This also reinforces the importance of sustainable business practices for the project.

10.4.4 Contract and Supplier Performance Management

Sustainability commitments and compliance management mechanisms (such as SMART sustainability targets, deliverables, requirements for performance reporting) are written into contracts where there is a material sustainability risk or opportunity.

Supplier sustainability performance will be monitored continuously for the life of a contract. The avenues to manage supplier performance with respect to sustainability are:

- Sub-Contractor Sustainability Action Plan
- Monthly Sub-contractor sustainability reporting
- Supply Chain Audits
- Performance feedback reporting through QA audits during delivery

Feedback on sustainability performance is reported to suppliers as part of MetCONNx contract management process. Non-compliances are managed formally through action plans, negotiations,

collaboration, or other contract management mechanisms. Where necessary, alternative approaches are negotiated with the subcontractor to achieve MetCONNx sustainability objectives and deliverables as set out in the Sustainability Action Plan (SAP).

10.4.4.1 Sustainability Action Plan

The Subcontractor Sustainability Action Plan (SAP) template (Appendix F) has been developed to set out the key obligations which a supplier would be required to deliver in line with the MetCONNx Sustainability Priorities. The objective of the SAP is also to highlight how the subcontractor/supplier will deliver on the required objectives and targets applicable to their package. Delivery of the action plan is not to the exclusion of all other Sustainability Plans and Obligations.

Tenderers are notified within ITT documentation of the requirement to develop a Sustainability Action Plan, prior to commencement of works. The Project Sustainability Team will engage with successful tenderers in the form of a kick-off workshop to brief the contents of the action plan, help identify initiatives and actions that are achievable within the Scope of Works and tied to the opportunities and risks identified for that package.

The SAP is reviewed on an annual basis (as appropriate to each package) to ensure compliance with Sustainability objectives and targets for the Project. Review frequency will be determined and justified with the sub-contractor.

10.4.4.2 Sustainability Reporting

Subcontractors will be required to provide a Monthly Sustainability Report confirming performance across a range of sustainability metrics. The requirement to submit the completed sustainability reporting template with the sub-contractor's monthly application for payment, forms part of the standard sub-contract agreement. Tenderers are notified of their sustainability reporting requirements in ITT documentation.

Where reporting is not submitted or is not to a required standard (e.g., non-compliant with targets and objectives) the Package Manager will liaise with the Subcontractor/Supplier to rectify and provided data required.

10.4.4.3 Audits

Periodic audits of sustainability performance against standards, as well as extended supply-chain (where relevant) will be undertaken. The Subcontractor will participate in and facilitate these audits at intervals, as advised by MetCONNx.

10.4.4.4 Performance Review & Management of Non-compliances

Sustainability performance review and management of non-compliance is integrated into contract management mechanisms. This performance review process includes the provision of contract specific feedback to the supply chain, via Action Plans, workshops and ad hoc meetings To ensure collaboration and support the supply chain to meet compliance.

10.5 **Review of Sustainable Procurement**

Performance monitoring and review against sustainable procurement objectives occurs at least annually (and at least once during the design phase) and is documented. The content of these reviews include:

- Progress against sustainable procurement objectives and SMART targets
- Review of package grading for all material (3 or above scored) contracts

The Sustainable Procurement Policy and this Plan are updated to reflect identified remedial actions. These reviews are conducted by the Procurement Manager, Sustainability Manager, Quality Manager and at least one representative from the senior management team.

10.6 Encouraging Sustainability Performance

MetCONNX will engage proactively with the Supply Chain to not only motivate good sustainability performance, but to build sustainability capability and capacity across the broader industry. This is consistent with our policy objective of ensuring contractors and suppliers have the right capabilities to provide excellent sustainable outcomes for the project (Appendix D). Mechanisms contained in Table 22 detail support opportunities:

Table 22 Mechanisms for Encouraging Sustainability Performance in the Supply Chain

Mechanism	Implementation
Proactive communication of sustainability objectives and expectations.	<p>To provide the market and suppliers with sufficient time to prepare and develop capabilities and goods or services to meet the needs of the project, MetCONNX will:</p> <ul style="list-style-type: none"> • Communicate sustainability objectives and performance targets through the Industry Capability Network (ICN) portal. • Engage early with the supply chain through Industry briefing session(s) • Include sustainability criteria in ITT documentation (see section 10.4.2.2).
Inclusion of stretch targets for sustainability performance in sub-contracts.	<p>Sub-contracts with material goods or services will be encouraged to approach MetCONNX with innovations/initiatives that perform beyond minimum sustainability requirements, possibly through rewarding the achievement of measurable stretch targets.</p>
Building sustainability capability in the supply chain.	<p>MetCONNX will identify opportunities to build sustainability capability within the project supply chain via:</p> <ul style="list-style-type: none"> • Contract kick-off workshops to educate and build effective Sustainability Action Plans (where required) in collaboration with the supply chain (see section 10.4.4.1). • Identifying critical and/or strategic suppliers where initiatives and innovation can achieve greater sustainability outcomes.

Table 23 Package Grading – Impact Levels

Grading Package Impact Levels						
Sustainability Issues	Assessment	1. Low	2. Moderate	3. Material	4. Severe	5. Highly Severe
Labour Practices	Refers to employment and employment relationships, conditions of work and social protection, social dialogue, health and safety at work, human development and training in the workplace.	Insignificant impact on objectives of labour practices.	Minor impact on objectives of labour practices. e.g. minor breach of International Labour Organization's Fundamental Conventions non payment of extra working hours.	Medium impact on objectives of labour practices. e.g. medium breach of International Labour Organization's Fundamental Conventions failure to fully respect collective bargaining agreements, moderate psychological pressure.	Major impact on objectives of labour practices. e.g. major breach of International Labour Organization's Fundamental Conventions such as staff working without a visa and/or contract, retaining worker's identity documentation such as passports, requiring workers to lodge deposits or bonds, charging workers recruitment fees.	Significant impact on objectives of labour practices. e.g. egregious breach of International Labour Organization's Fundamental Conventions such as psychological or physical violence and threats, child labour, detention, human trafficking.
Human Rights	Refers to due diligence, human rights risk situations, avoidance of complicity, resolving grievances, discrimination and vulnerable groups, civil and political rights, economic, social and cultural rights, fundamental principles and rights at work.	Insignificant impact on objectives of human rights.	Minor impact on objectives of human rights.	Medium impact on objectives of human rights.	Major impact on objectives of human rights.	Significant impact on objectives on objectives of human rights.
The Environment	Refers to prevention of pollution, climate change mitigation and adaptation, protection of the environment, biodiversity and restoration of natural habitats. <u>Prevention of Pollution:</u> Refers to land, water and air pollution including spills, release of hazardous chemicals, noise and vibration, light etc. <u>Climate Change:</u> Refers to risks from air temperature change, humidity, sea surface temperature, precipitation, sea level rise, wind and hail, bushfire, coastal inundation, cyclones/storms, flooding, heatwave and drought. <u>Protection of the environment/biodiversity:</u> Refers to biodiversity and ecological protection, fauna and flora protection etc.	Insignificant impact on environmental values to land, water and air, including prevention of pollution, climate change mitigation and adaptation, protection of the environment, biodiversity and restoration of natural habitats.	Minor impact on environmental values to land, water and air, including prevention of pollution, climate change mitigation and adaptation, protection of the environment, biodiversity and restoration of natural habitats. e.g. minor clearance of native, endangered vegetation, minor, reversible pollution incident e.g. small leakage or waste inappropriately recycled. reversible onsite environmental disruption.	Medium impact on environmental values to land, water and air, including prevention of pollution, climate change mitigation and adaptation, protection of the environment, biodiversity and restoration of natural habitats. e.g. medium clearance of native, endangered vegetation, medium reversible pollution incident e.g. illegal dumping of waste and local air and/or water pollution. Reversible onsite or offsite environmental or public health damage.eg. contamination of neighbouring sites.	Major impact on environmental values to land, water and air, including prevention of pollution, climate change mitigation and adaptation, protection of the environment, biodiversity and restoration of natural habitats. e.g. major clearance of native, endangered vegetation, major pollution incident which requires greater than 1 months to remediate. Widespread onsite or offsite environmental or public health damage.eg. e.g. illegal dumping of waste materials, impact on community/wildlife health, major local air and/or water pollution.	Significant impact on environmental values to land, water and air, including prevention of pollution, climate change mitigation and adaptation, protection of the environment, biodiversity and restoration of natural habitats. e.g. significant clearance of native, endangered vegetation, significant pollution incident which requires greater than 6 months to remediate. Irreversible widespread onsite or offsite environmental or public health damage.eg. contamination of aquifer, contamination of land, habitat displacement.
Water efficiency	Water Efficiency refers to a reduction in water demand across the infrastructure lifecycle, and utilising appropriate water sources. A water use and demand assessment will be undertaken for construction and operational phases. All feasible water reduction opportunities need to be implemented for the operation of the asset. A minimum of three construction initiatives must be identified, and included in design and construction. Water usage is to be measured and monitored. A target of a reduction of 15% in water use compared to a base case must be achieved. An assessment will be undertaken to identify available and appropriate water sources for the asset. Feasible water source options incorporated into the design and construction methodology must be implemented.	Insignificant impact on water efficiency objectives. e.g. contributing to less than 2% of <u>one</u> of the following objectives: undertaking of a water balance study, reduction of water use, use of water from non-potable sources, harvesting of rainwater, collecting, treating and reuse of stormwater and wastewater.	Minor impact on water efficiency objectives. e.g. contributing between 2 to 5 % of <u>one</u> of the following objectives: undertaking of a water balance study, reduction of water use, use of water from non-potable sources, harvesting of rainwater, collecting, treating and reuse of stormwater and wastewater.	Medium impact water efficiency objectives. e.g. contributing between 5 to 10 % of one of the following objectives: undertaking of a water balance study, reduction of water use, use of water from non-potable sources, harvesting of rainwater, collecting, treating and reuse of stormwater and wastewater.	Major impact on water efficiency objectives. e.g. contributing between 10 to 20% of <u>one</u> of the following objectives: undertaking of a water balance study, reduction of water use, use of water from non-potable sources, harvesting of rainwater, collecting, treating and reuse of stormwater and wastewater.	Significant impact on water efficiency objectives.. e.g. contributing to more than 20% of <u>one</u> of the following objectives: undertaking of a water balance study, reduction of water use, use of water from non-potable sources, harvesting of rainwater, collecting, treating and reuse of stormwater and wastewater.

Grading Package Impact Levels						
Sustainability Issues	Assessment	1. Low	2. Moderate	3. Material	4. Severe	5. Highly Severe
Sustainable Resource Use	MELconnx will develop Life Cycle Assessment (LCA) Models, in accordance with ISO14040 and ISO14044, and review the output from the LCA Model to inform design decision making and continuous improvement with respect to whole-of-life costs and environmental footprints of materials, water, energy and waste used/generated. <u>Sustainable Resource Use</u> : Refers to use of resources (energy and materials), renewable energy initiatives, material lifecycle impacts, use of remediated products, waste outputs and landfill diversions/recovery, circular economy for resource use etc. Project targets include: - A reduction in carbon emissions of 10% compared to a base case footprint. - A reduction in materials' life cycle impacts of 15% compared to a Base Case footprint - >95% reuse of clean/inert excavation spoil (including >75% on-site reuse) - >70% office resource outputs diverted from landfill - >80% other inert resource outputs diverted from landfill	Insignificant impact on objectives related to Sustainable Resource Use e.g. contributing to less than 2% of <u>one</u> of the following objectives: greenhouse gas emission reduction target, use of renewable energies, reduction in materials impacts, alternative fuels, landfill diversion rates.	Minor impact on objectives related to Sustainable Resource Use e.g. contributing to less than 2% of <u>one</u> of the following objectives: greenhouse gas emission reduction target, use of renewable energies, reduction in materials impacts, alternative fuels, landfill diversion rates.	Medium impact on objectives related to Sustainable Resource Use e.g. contributing to less than 2% of one of the following objectives: greenhouse gas emission reduction target, use of renewable energies, reduction in materials impacts, alternative fuels, landfill diversion rates.	Major impact on objectives related to Sustainable Resource Use e.g. contributing to less than 2% of <u>one</u> of the following objectives: greenhouse gas emission reduction target, use of renewable energies, reduction in materials impacts, alternative fuels, landfill diversion rates.	Significant impact on objectives related to Sustainable Resource Use e.g. contributing to less than 2% of <u>one</u> of the following objectives: greenhouse gas emission reduction target, use of renewable energies, reduction in materials impacts, alternative fuels, landfill diversion rates.
Fair Operating Practices	Refers to anti-corruption, responsible political involvement, fair competition, promoting sustainability in the value chain, respect for property rights.	Insignificant impact on objectives of fair operating practices.	Minor impact on objectives of fair operating practices.	Medium impact on objectives of fair operating practices.	Major impact on objectives of fair operating practices.	Significant impact on objectives on objectives of fair operating practices.
Consumer Issues	Refers to fair marketing, factual and unbiased information, fair contractual practices, protecting consumers' health and safety, sustainable consumption, consumer service and support, and complaint and dispute resolution, consumer data protection and privacy, access to essential services, education and awareness.	Insignificant impact on consumer issues.	Minor impact on consumer issues.	Medium impact on consumer issues.	Major impact on consumer issues.	Significant impact on consumer issues.
Community Involvement and Development	Refers to community involvement, education and culture, employment creation and skills development, technology development and access, wealth and income creation, health, social investment. Includes preference of creation of local sustainable jobs.	Insignificant impact on community involvement and development.	Minor impact on community involvement and development. e.g. minor opportunity in the current supply market to employ 1-2 workers (including aboriginal people) in Local Sustainable Jobs instead of non Local Sustainable Jobs	Medium impact on community involvement and development. e.g. medium opportunity in the current supply market to employ some workers (including aboriginal people) in Local Sustainable Jobs instead of non Local Sustainable Jobs.	Major impact on community involvement and development. e.g. major opportunity in the current supply market to employ several workers (including aboriginal people) in Local Sustainable Jobs instead of non Local Sustainable Jobs	Significant impact on community involvement and development. e.g. significant opportunity in the current supply market to employ a large proportion of the workforce (including aboriginal people) in Local Sustainable Jobs instead of non Local Sustainable Jobs
Recognised Aboriginal Businesses	The Gnarla Bidji METRONET's Aboriginal Engagement Strategy outlines targets of 2% of awarded contracts to registered Aboriginal businesses during FY 2019/20, and 3% of awarded contracts to registered Aboriginal businesses during FY 2020/21 and beyond.	Insignificant impact on objectives related to Aboriginal Engagement.	Minor impact on objectives related to Aboriginal Engagement. e.g. minor opportunity in the current supply market to use one capable Recognised Aboriginal Business instead of other types of businesses.	Medium impact on objectives related to Aboriginal Engagement. e.g. medium opportunity in the current supply market to use some capable Recognised Aboriginal Businesses instead of other types of businesses.	Major impact on objectives related to Aboriginal Engagement. e.g. major opportunity in the current supply market to use several capable Recognised Aboriginal Businesses instead of other types of businesses.	Significant impact on objectives related to Aboriginal Engagement. e.g. significant opportunity in the current supply market to use a large number of capable Recognised Aboriginal Businesses instead of other types of businesses.

Grading Package Impact Levels						
Sustainability Issues	Assessment	1. Low	2. Moderate	3. Material	4. Severe	5. Highly Severe
Workforce diversity and development	The Gnarla Bidji Strategy outlines the target of Aboriginal employees to make up >3% of total hours worked on the Project. Alignment with Project IS Wfs-3 Diversity & Inclusion Action Plan targets Maximising traineeships and mentoring opportunities including local young people from the immediate area in the workforce, displaced trainees from other nearby projects/industries)	Insignificant impact on objectives related to workforce diversity and development. e.g. contributing to less than 2% of <u>one</u> of the following objectives: employing a large number of Apprentices or Trainees (including Aboriginal people), allowing a large number of workers to participate in relevant Workforce Skills Development Training, employing a large number of female workers in Non-traditional trades (including Aboriginal people), employing a large number of workers under the age of 25 years whilst working on the MEL Project.	Minor impact on objectives related to workforce diversity and development. e.g. contributing between 2 to 5 % of <u>one</u> of the following objectives: employing a large number of Apprentices or Trainees (including Aboriginal people), allowing a large number of workers to participate in relevant Workforce Skills Development Training, employing a large number of female workers in Non-traditional trades (including Aboriginal people), employing a large number of workers under the age of 25 years whilst working on the MEL Project.	Medium impact on objectives related to workforce diversity and development. e.g. contributing between 5 to 10% of one of the following objectives: employing a large number of Apprentices or Trainees (including Aboriginal people), allowing a large number of workers to participate in relevant Workforce Skills Development Training, employing a large number of female workers in Non-traditional trades (including Aboriginal people), employing a large number of workers under the age of 25 years whilst working on the MEL Project.	Major impact on objectives related to workforce diversity and development. e.g. contributing between 10 to 20% of <u>one</u> of the following objectives: employing a large number of Apprentices or Trainees (including Aboriginal people), allowing a large number of workers to participate in relevant Workforce Skills Development Training, employing a large number of female workers in Non-traditional trades (including Aboriginal people), employing a large number of workers under the age of 25 years whilst working on the MEL Project.	Significant impact on objectives related to workforce diversity and development. e.g. contributing to more than 20% of <u>one</u> of the following objectives: employing a large number of Apprentices or Trainees (including Aboriginal people), allowing a large number of workers to participate in relevant Workforce Skills Development Training, employing a large number of female workers in Non-traditional trades (including Aboriginal people), employing a large number of workers under the age of 25 years whilst working on the MEL Project.

Table 24 Package Grading – Assessment Guide

Topics	Contract and management requirements	Questions	
		Consequence	Likelihood
Overarching (General)	Risk and opportunity refers to any sustainability impact that represents a risk (potential negative occurrence) and/or an opportunity (potential positive occurrence) to the project/asset directly or in the contributing supply chains, depending on the context of the project. It is important to note that the concept of due diligence, as described in major international texts such as the UN Guiding Principles on Human Rights or ISO 20400:2017 Sustainable Procurement Guidance, requires organisations to manage adverse sustainability impacts throughout the entire supply chain, regardless of whether organisations are explicitly required to manage them, e.g. by regulations or other external pressures. Risk and opportunity management in the context of SP is the process to identify, prioritise and manage the project/asset and supply chain sustainability risks and opportunities related to procurement activities. The R&O must comply with <i>ISO 20400: 2017 - Sustainable Procurement - Guidance</i> . <u>SWTC References:</u> The assessment of sustainable procurement opportunities and defined management measures (i.e. initiatives) must be captured through the process defined for in this SWTC Book 2.	<ul style="list-style-type: none"> Do you have knowledge of sustainability issues associated with the product/service's supply chain, related to the following elements: <ul style="list-style-type: none"> Where the product / service is coming from How the product is produced How and by who it is transported – the nature of the transportation What would be the risk of non compliance with SWTC and ISCA Sustainable Procurement management requirements? Could there be any other business impact for Laing O'Rourke e.g. damage to relationship with PTA/OMTID, broader reputation damage, disruption of operations, costs? 	<ul style="list-style-type: none"> Have you had any compliance issues with these Packages happening in the past few years? If yes, how often? If no, do you think it could happen in a near future? Do you see an opportunity with this Package? If yes, how large and feasible?
Labour Practices	Refers to employment and employment relationships, conditions of work and social protection, social dialogue, health and safety at work, human development and training in the workplace.	<ul style="list-style-type: none"> Do you know anything about the contractor/supplier's workforce employment standards? Do suppliers use employment agencies, labour hire and/or casuals? Do they subcontract labour intensive areas of their work? Could there be instances of labour practice issues in the product or service's supply chains, e.g. underpaid staff, harassment, lack of HSE protection? What would be the risk of non compliance with SWTC contract management requirements if we were not to manage labour and human rights on this product / service? Could there be any other business impact for Laing O'Rourke e.g. damage to relationship with PTA/OMTID, broader reputation damage, disruption of operations, costs? 	<ul style="list-style-type: none"> Have you had any labour practice compliance issues with these Packages happening in the past few years? If yes, how often? If no, do you think it could happen in a near future? Do you see an opportunity with this Package? If yes, how large and feasible?

Topics	Contract and management requirements	Questions	
		Consequence	Likelihood
Human Rights	Refers to due diligence, human rights risk situations, avoidance of complicity, resolving grievances, discrimination and vulnerable groups, civil and political rights, economic, social and cultural rights, fundamental principles and rights at work.	<ul style="list-style-type: none"> Do you know anything about the contractor/supplier's workforce? Are we dealing with a vulnerable workforce such as low skilled, migrant, temporary workforce? Could there be instances of human rights issues in the product or service's supply chains, e.g. staff working without a visa and/or contract, underpaid staff, harassment, forced labour? What would be the risk of non compliance with CSMW contract management requirements if we were not to manage labour and human rights on this product / service? Could there be any other business impact for Laing O'Rourke e.g. damage to relationship with PTA/OMTID, broader reputation damage, disruption of operations, costs? 	<ul style="list-style-type: none"> Have you had any human rights compliance issues with these Packages happening in the past few years? If yes, how often? If no, do you think it could happen in a near future? Do you see an opportunity with this Package? If yes, how large and feasible?
The Environment	<p>Refers to prevention of pollution, climate change mitigation and adaptation, protection of the environment, biodiversity and restoration of natural habitats.</p> <p>Prevention of Pollution: Refers to land, water and air pollution including spills, release of hazardous chemicals, noise and vibration, light etc.</p> <p>Climate Change: Refers to risks from air temperature change, humidity, sea surface temperature, precipitation, sea level rise, wind and hail, bushfire, coastal inundation, cyclones/storms, flooding, heatwave and drought.</p> <p>Protection of the environment/biodiversity: Refers to biodiversity and ecological protection, fauna and flora protection etc.</p>	<ul style="list-style-type: none"> Could the product or service cause any environmental incidents? What specific issues are we talking about? e.g. disruption of fauna and flora, impact biodiversity, diminish out-door air quality, cause pollution incidents including spills, leakages, release of hazardous chemicals into the atmosphere? Could the product/service impact the resilience of the Asset to climate or weather related threat e.g. flood, storm, bushfire, heat wave? What specific issues are we talking about? Does the product / service contribute to achieving Laing O'Rourke's carbon and energy management contractual objectives: <ul style="list-style-type: none"> Directly (e.g. through supply of material); or Indirectly (e.g. through a sub-contractor)? Is this contribution minor and major? What would be the risk of non compliance with SWTC requirements if we were not to manage environmental incidents caused by this product or service? Could there be any other business impact for Laing O'Rourke e.g. damage to relationship with PTA/OMTID, broader reputation damage, disruption of operations, costs? 	<ul style="list-style-type: none"> Have you had any environmental incidents; climate or weather related issues; carbon and/or energy management performance issues with these Packages happening in the past few years? If yes, how often? If no, do you think it could happen in a near future? Do you see an opportunity with environmental management, climate adaptation, biodiversity and/or restoration with this Package? If yes, how large and feasible?
Water Efficiency	<p>Water Efficiency refers to a reduction in water demand across the infrastructure lifecycle, and utilising appropriate water sources.</p> <p>A water use and demand assessment will be undertaken for construction and operational phases. All feasible water reduction opportunities need to be implemented for the operation of the asset. A minimum of three construction initiatives must be identified, and included in design and construction. Water usage is to be measured and monitored. A target of a reduction of 15% in water use compared to a base case must be achieved.</p> <p>An assessment will be undertaken to identify available and appropriate water sources for the asset. Feasible water source options incorporated into the design and construction methodology must be implemented.</p>	<ul style="list-style-type: none"> Does the product / service contribute to complying with the water efficiency management requirements: <ul style="list-style-type: none"> Directly (e.g. through supply of material); or Indirectly (e.g. through a sub-contractor)? Is this contribution minor and major? What would be the risk of non compliance with contract management requirements if we were not to manage water efficiency?? Could there be any other business impact for Laing O'Rourke e.g. damage to relationship with PTA/OMTID, broader reputation damage, disruption of operations, costs? 	<ul style="list-style-type: none"> Have you had any water efficiency performance issues with these Packages happening in the past few years? If yes, how often? If no, do you think it could happen for this Asset? Do you see a water efficiency opportunity with this Package? If yes, how large and feasible?
Sustainable Resource Use	<p>MELconnx are reviewing the MEL Life Cycle Assessment Report based on the MEL concept designs to identify key opportunities to improve performance with respect to whole-of-life costs and environmental footprints of project materials, water, energy and waste.</p> <p>MELconnx will develop Life Cycle Assessment (LCA) Models, in accordance with ISO14040 and ISO14044, and review the output from the LCA Model to inform design decision making and continuous improvement with respect to whole-of-life costs and environmental footprints of materials, water, energy and waste used/generated.</p> <p>Sustainable Resource Use: Refers to use of resources (energy and materials), renewable energy initiatives, material lifecycle impacts, use of remediated products, waste outputs and landfill diversions/recovery, circular economy for resource use etc. Project targets include:</p> <ul style="list-style-type: none"> A reduction in carbon emissions of 10% compared to a base case footprint. A reduction in materials' life cycle impacts of 15% compared to a Base Case footprint >95% reuse of clean/inert excavation spoil (including >75% on-site reuse) >70% office resource outputs diverted from landfill >80% other inert resource outputs diverted from landfill 	<ul style="list-style-type: none"> Does the product / service contribute to complying with the sustainable resource use requirements? <ul style="list-style-type: none"> Directly (e.g. through supply of material); or Indirectly (e.g. through a sub-contractor)? Is this contribution minor and major? What would be the risk of non compliance with contract management requirements if we were not to manage water efficiency and material sustainability on this product / service?? Could there be any other business impact for Laing O'Rourke e.g. damage to relationship with PTA/OMTID, broader reputation damage, disruption of operations, costs? 	<ul style="list-style-type: none"> Have you had any material sustainability or resource outputs (waste) performance issues happening in the past few years? If yes, how often? If no, do you think it could happen for this Asset? Do you see a materials or resource use/output opportunity with this Package, including circular economy outcomes? If yes, how large and feasible?
Fair Operating Practices	Refers to anti-corruption, responsible political involvement, fair competition, promoting sustainability in the value chain, respect for property rights;	<ul style="list-style-type: none"> Do you know anything about the contractor/supplier's Operating practices? Could there be any other business impact for Laing O'Rourke e.g. damage to relationship with PTA/OMTID, broader reputation damage, disruption of operations, costs? 	<ul style="list-style-type: none"> Have you had any operating practice compliance issues with these Packages happening in the past few years? If yes, how often? If no, do you think it could happen in a near future? Do you see an opportunity with this Package? If yes, how large and feasible?

Topics	Contract and management requirements	Questions	
		Consequence	Likelihood
Consumer Issues	Refers to fair marketing, factual and unbiased information, fair contractual practices, protecting consumers' health and safety, sustainable consumption, consumer service and support, and complaint and dispute resolution, consumer data protection and privacy, access to essential services, education and awareness.	<ul style="list-style-type: none"> Do you know anything about the contractor/supplier's consumer practices? Could there be any other business impact for Laing O'Rourke e.g. damage to relationship with PTA/OMTID, broader reputation damage, disruption of operations, costs? 	<ul style="list-style-type: none"> Have you had any consumer practice compliance issues with these Packages happening in the past few years? If yes, how often? If no, do you think it could happen in a near future? Do you see an opportunity with this Package? If yes, how large and feasible?
Community Involvement and Development	Refers to community involvement, education and culture, employment creation and skills development, technology development and access, wealth and income creation, health, social investment. Includes preference of creation of local sustainable jobs.	<ul style="list-style-type: none"> Do you know anything about the contractor/supplier's community practices? IS the package a labour-intensive, recurring service occurring locally? If the answer above is NO, risk is low. If the answer above is YES: is this service traditionally and naturally delivered by local workforce? If the answer above is YES, risk is low. If the answer above is NO: could the service be delivered by more local workforce, including Aboriginal people, instead of non local workforce? Could there be any other business impact for Laing O'Rourke e.g. damage to relationship with PTA/OMTID, broader reputation damage, disruption of operations, costs? 	<ul style="list-style-type: none"> Have you had any community involvement and development issues with these Packages happening in the past few years? If yes, how often? If no, do you think it could happen in a near future? Do you see an opportunity with this Package? If yes, how large and feasible?
Recognised Aboriginal Businesses	The Gnarla Bididi METRONET's Aboriginal Engagement Strategy outlines targets of 2% of awarded contracts to registered Aboriginal businesses during FY 2019/20, and 3% of awarded contracts to registered Aboriginal businesses during FY 2020/21 and beyond.	<ul style="list-style-type: none"> Could the product/service be provided by Recognised Aboriginal Business(es) instead of the current supplier/contractor(s)? What would be the risk of non compliance with contract management requirements if we were not to include Recognised Aboriginal Business(es) on this product / service?? Could there be any other business impact for Laing O'Rourke e.g. damage to relationship with PTA/OMTID, broader reputation damage, disruption of operations, costs? 	<ul style="list-style-type: none"> How easy would it be to identify and engage with Recognised Aboriginal Business(es) on this Package?
Workforce diversity and development	The Gnarla Bididi Strategy outlines the target of Aboriginal employees to make up >3% of total hours worked on the Project. Alignment with Project IS Wfs-3 Diversity & Inclusion Action Plan targets Maximising traineeships and mentoring opportunities Including local young people from the immediate area in the workforce, displaced trainees from other nearby projects/industries)	<ul style="list-style-type: none"> Are we talking about a labour-intensive service that will generate a large amount of working hours throughout the contract? Could this service land itself to: <ul style="list-style-type: none"> Use Apprentices or Trainees, including Aboriginal People; and/or Workforce Skills Development Training, including Aboriginal People and/or Work Experience Placements and Graduate Placements? Could the service be delivered by more women (including in Non-Traditional Trades), Aboriginal People and/or under the age of 25 years, compared with the typical workforce used for this service? What would be the risk of non compliance with contract management requirements if we were not to manage workforce diversity and/or development on this product / service? Could there be any other business impact for Laing O'Rourke e.g. damage to relationship with PTA/OMTID, broader reputation damage, disruption of operations, costs? 	<ul style="list-style-type: none"> How easy would it be to implement workforce development and diversity initiative on this Package?

Appendix J: SuMP Alignment with METRONET Template

METRONET TEMPLATE HEADINGS		SuMP Section	Corresponding MetCONNx Headings
1	Introduction	2	Purpose of this Plan
1.1	Purpose & Application	2.1 2.3	Introduction Objectives
1.2	Management System Integration	2.5.1	Interfacing Plans and Sub-Plans
2	Context	3	Context
2.1	Understanding the Project's Context	3.1	Understanding the Project's Context
2.1.1	International	3.1.1	Global Sustainability Context
2.1.2	Australia	3.1.2	Australian Sustainability Context
2.1.3	METRONET	3.1.3	METRONET Sustainability Context
2.1.4	Lead Agency	2.3	Objectives
2.1.5	Contractor/Alliance	3.1.4	MetCONNx Sustainability Context
2.1.6	SDG Materiality Assessment	3.1.2.1	2020 Australian SDG Performance: General Outcomes
2.1.7	Weightings Assessment	3.1.5	Weightings Assessment
2.2	Needs and Expectations of Stakeholders	3	Context
2.3	Project Scope	1.2.2	General Scope of Works
3	Leadership and Commitment	4	Leadership and Commitment
3.1	Sustainability Leadership Committee	4.3	Sustainability Leadership Committee
3.2	Sustainability Policy	4.1	Sustainability Policy
3.3	Leadership Roles, Responsibilities and Authorities	4.2	Roles, Responsibilities and Authorities
4	Planning	5	Planning
4.1	Risks and Opportunities	5.3	Risks and Opportunities
4.1.1	Climate Change and Natural Hazards Risk Assessment	5.3.1	Climate change and natural hazards risk assessment
4.1.2	Resilience Risk Assessment	5.3.2	Resilience risk assessment
4.2	Compliance Obligations	5.1	Compliance Obligations
4.3	Sustainability Objectives	5.2	Sustainability Objectives
4.4	Planning Action	6	Operational Controls (table 11)
4.4.1	Decision making	5.3.3 5.3.4	Opportunity assessment process Significant decision-making process
5	Support and Operational Control	6	Operational Controls
5.1	Resources	6	Operational Controls (table 11)
5.1.1	Time	Appendix C	Excerpt of Sustainability Obligations Register
5.1.2	Personnel	4.2	Roles, Responsibilities and Authorities
5.1.3	Design	6	Operational Controls (table 11)
5.1.4	Procurement	6	Operational Controls (table 11)
5.1.5	Construction	6	Operational Controls (table 11)
5.1.6	Stakeholder Engagement	6	Operational Controls (table 11)
5.1.7	Workforce Development	6	Operational Controls (table 11)
5.1.8	Environmental	6	Operational Controls (table 11)
5.2	Competence, Awareness and Training	7	Competence, Awareness and Training
5.3	Communication	8	Communication
5.3.1	Issues and Stakeholders	8	Communication
5.3.2	Internal Communication	8.1	Internal Communication
5.3.3	External Communication	8.2	External Communication
5.4	Documentation	8.3	Documentation
6	Performance Evaluation	9	Performance Evaluation
6.1	Monitoring, Measurement and Analysis	9.1	Monitoring, Measurement, and Analysis
6.2	Reporting	9.2	Reporting
6.3	Audit, Review and Verification	9.3	Audit, Review and Verification
6.5	Management Review	10	Continual improvement and management review
6.5	Improvement	10.1	Non-compliance and corrective actions
	Appendix A – Sustainability Policy		Appendix A: Sustainability Policy
	Appendix B – Sustainability Opportunity/Initiative Register		Appendix B: Extract of BRE Sustainability Opportunities and Innovations Register
	Appendix C - Sustainability Obligations Register		Appendix C: Excerpt of Sustainability Obligations Register
	Appendix D – Design Rating Tracker		Appendix D: Design Rating Tracker – Minimum Pathway
	Appendix E – Project Sustainability Organisational Chart		Appendix E: Project Organisational Chart
	Appendix F – X Sub-Plans		